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The Chat

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The Ornithological Society of the Carolinas

THE CHAT

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OUR COVER—Paul A. Stewart caught this hen Wood Duck at the same nest box as the two ducklings portrayed on our Spring 1987 issue.

EDITORIAL

For nearly twenty-five years, *The Chat* has thrived under the effective editorial leadership of Eloise Potter. Now *The Chat* is recognized widely as a reputable journal of regional ornithology. Notes appearing in *The Chat* are abstracted regularly into the national orinthological journals of the United States, Great Britain, and Australia.

Given this appreciation of our status, and some historical sense of how it was achieved, it is with an overwhelming sense of responsibility and humility that I assume the office of editor. My primary goal is to maintain the quality of the journal that all of the membership has strived to achieve. This cannot be done without a great deal of help.

Fortunately, many of the people who have been important in getting *The Chat* to where it is today will continue to assist as they have in the past. Will Post will continue as South Carolina General Field Notes editor, and Harry LeGrand will continue to edit the Briefs for the Files and serve as Southern Atlantic Coast Regional editor for *American Birds.* Dave Lee has agreed to resume his former position of General Field Notes editor for North Carolina beginning with the next issue.

There will also be some changes in the upcoming issues. Both Gail Whitehurst and Louis Fink have expressed a desire to discontinue their respective departments of Backyard Birding and CBC Roundtable. Their reasons are remarkably similar. Both departments were created to provide the membership with an opportunity to have "non-professional" input into the journal. Participation in this avenue of expression has declined over the years, to the point where neither editor feels it is worth continuing. I am accepting their advice with a great deal of reluctance. Any suggestions for ways to re-establish this outlet, and more importantly, any volunteers to take on the duties of carrying it out will be given careful consideration.

As in all areas of science, it is not possible to construct generalizations and draw conclusions without factual observations. While it is obvious that *The Chat* depends upon the staff whose names appear on the masthead to present a journal that is both scientifically valid and of popular interest, it is equally dependent upon the contributions of the hundreds of members who submit their careful and accurate observations. Keep sending in your observations; *The Chat* cannot survive without them.

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Notes on Bachman's Sparrow in the Croatan National Forest

BROOKE MEANLEY

During parts of April and May 1987, I obtained information on Bachman's Sparrow *(Aimophila aestivalis bachmani)* in the Croatan National Forest, Carteret County, North Carolina. The area of investigation is known as the Millis Road Savanna, and is located approximately half way between Morehead City and Swansboro, and is about five miles from the Atlantic coast.

HABITAT

Bachman's Sparrow habitat at this station is an open, park-like, mature Longleaf Pine-Wiregrass *(Pinus palustris-Aristida stricta)* savanna (Fig. 1) of about 200 acres, somewhat divided into blocks or compartments by comparatively narrow bands of Pocosins (evergreen shrub-bogs) with a scattering of Pond Pines *(Pinus serotin).*

The Millis Road savanna is of special interest as it apparently is the northernmost extensive habitat of this type along the Atlantic Coastal Plain; and as John O. Fussell states in *Finding Birds in Carteret County* (1985), is the northeasternmost site where the sparrow occurs regularly. As Fussell also points out in his book; "This type of habitat once stretched over vast areas of the Southeast, but is now becoming rare because of modern forestry prac-

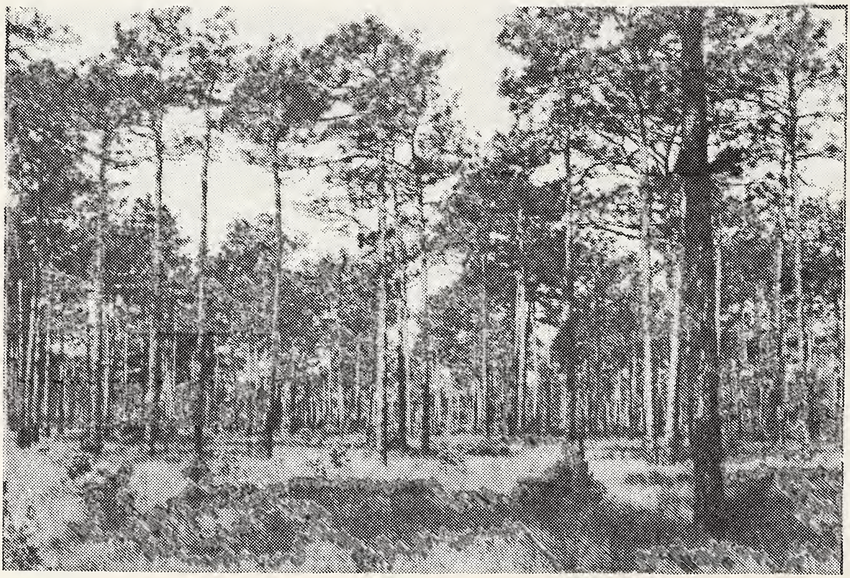

Fig. 1 Longleaf Pine-Wiregrass savanna habitat of Bachman's Sparrow in the Croatan National Forest, Carteret County, North Carolina.

tices." During the breeding season of 1987, I located 15 territorial male Bachman's Sparrows in the 200-acre savanna.

The Longleaf Pine-Wiregrass savanna is the classic habitat of breeding Bachman's Sparrows. Although some of these birds occasionally occur elsewhere; in grassy fields with a scattering of shrubs, fields with brush piles following a clear-cut timber harvest, or in young pine plantations, particularly in the more northern part of the range; such secondary habitats are usually in a successional stage and Bachman's Sparrow populations would be temporary or present for only a few years.

The Longleaf Pine forest is a subclimax or fire-climax type, and is maintained as such at Millis Road by prescribed or controlled burning about every three years. Prescribed burning reduces the danger of wildfire and enhances desirable vegetation. The area in the Croatan National Forest is burned in late winter, well before the breeding season of Bachman's Sparrow and other ground nesters. John Fussell informs me that Bachman's Sparrows have been at the Millis Road Savanna each year during the breeding season since he began visiting the area in 1974.

In this open, park-like habitat at Millis Road, the tallest pines are 70-80 feet in height, and 70-90 years old. In addition to the predominantly Wiregrass ground cover beneath the pines, there are small woody shrubs and a variety of herbaceous plants scattered through the savanna. Most of the shrubs are dwarfed or stunted due to the fire. Among the most abundant are several species of Blueberry *(Vaccinium* spp.), Dwarf Wax Myrtle (*Myrica cerifera* var. *pumila)*, Gallberry *(Ilex glabra)*, and Swamp Magnolia *(Magnolia virginiana)* saplings.

NESTING

I located a nest of four eggs on 21 May 1987. The nest was placed under a tussock of Wiregrass next to a small clump of Blueberry plants and 15 inches from a Swamp Magnolia sapling. The nest was arched over, and the opening faced east.

On that date, I made observations in the area of the nest, and between 10:00 a.m. and 12:30 p.m. EST, the female left the nest to feed three times, and remained away from the nest for about 10 minutes each time. She fed an average of 55 feet away form the nest.

The following day, between 9:00 and 11:00 a.m. EST, the eggs hatched. Following the hatching of the eggs, there was no indication that the young were fed that day. The next day (23 May), I noted that the young were fed four times between 8:00 a.m. and 12:30 p.m. EST, three times by the female and once by the male. My observations at the nest were terminated in the early afternoon.

ACKNOWLEDGEMENTS

I wish to thank John O. Fussell for introducing me to the Millis Road Savanna, and also to thank R. Paul Bullard, District Ranger, Croatan National Forest, for encouraging my Bachman's Sparrow study.

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Status of the Scarlet Ibis in South Carolina: Historical Records from John Abbot and Alexander Wilson

MARCUS B. SIMPSON JR.

The brillantly plumaged Scarlet Ibis *(Eudocimus ruber)* is among the most attractive wading birds of the New World. Although the contemporary range of the species is confined largely to the coast and neighboring islands of northern South America, the bird was reported occasionally at widely scattered locales in North America during the nineteenth century. Sprunt and Chamberlain (1970) and Potter et. al. (1980) give no records of the bird from South Carolina, although observations in the early 1800's by John Abbot and Alexander Wilson suggest that the species should be considered for inclusion on the state's hypothetical list.

John Abbot was born in London in 1751, emigrated to Virginia in 1773, and relocated to the lower Savannah River valley by early 1776, remaining there until his death around 1840. An experienced artist and naturalist prior to leaving England, Abbot soon emerged as one of the most talented and certainly the most prolific illustrator of insects and birds in North America during his lifetime. Abbot's meticulous ornithological observations were used extensively by John Latham (1801; 1821-1824) and Alexander Wilson in their writings. Over 1200 of Abbot's skillfully crafted watercolor drawings of American birds have survived into modern times, distributed among museums and private collections in England and the United States (Simpson, 1984).

Two of these collections of Abbot's paintings contain watercolor drawings of the Scarlet Ibis. Abbot's largest extant collection, the Egerton set at the British Museum (Natural History) in London, is entitled "Drawings and Natural History, of the Birds of Georgia, in America. . . by John Abbot." The set consists of 297 paintings, and plate number 238 is a strikingly colored Scarlet Ibis. Abbot's accompanying text states "It is a Rare Bird in these parts," and he gives measurements that suggest he had collected the species. Although undated, the Egerton set was probably executed over a period of time between 1791 and 1815. The second drawing of the species appears in the manuscript volume "Drawings of the Birds of Georgia by John Abbot," presently located at the Houghton Library of Harvard University. Among the 181 drawings extant from this group, plate number 161 represents the Scarlet Ibis. Although most of this collection is also undated, various clues suggest that it was crafted bewteen 1801 and 1815 (Simpson, 1984).

While these observations were ostensibly from Georgia, it is well known that Abbot conducted his forays along both sides of the Savannah River, and his writings not infrequently mention South Carolina. Although there is no direct evidence to support the supposition, it is quite possible that Abbot told Alexander Wilson that the Scarlet Ibis had been noted in South Carolina. Abbot met Wilson during the latter's southern tour of 1809, when the two men spent time in the field and exchanged information on the birds of the Southeast. Wilson had probably learned of Abbot's activities from their mutual friend Charles W. Peale of Philadelphia, who knew of Abbot's bird work as early as 1805 (Peale, 1805). Wilson relied heavily on Abbot for information about the bird life of the southeast coast, and the data were not always overtly credited to Abbot in Wilson's writings (Simpson, 1986).

Such is apparently the case with the Scarlet Ibis, for Wilson (1814) states in volume 8 of the *American Ornithology:* "This beautiful bird is found in most southern parts of Carolina;

also in Georgia and Florida." Subsequent editions of Wilson's *Ornithology* repeated the assertion, which was occasionally duplicated by later writers until the claim eventually disappeared from the ornithological literature by the end of the century. Abbot's British correspondent, John Latham, mentioned in volume IX of the *General History of Birds* (1824) that "a few (were) seen in the South of Carolina, and sometimes in Georgia," but it is not apparent whether he was paraphrasing Wilson or quoting directly from Abbot. Although Wilson might have obtained this information elsewhere, it seems most likely that his informant was Abbot, who crafted at least two watercolor renderings of the bird. Due to the absence of specimens and lack of detailed records, Wilson's claim that the Scarlet Ibis occured in the "most southern parts of Carolina" should prompt consideration of admitting the species to the hypothetical list for South Carolina.

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Observations on Avian Morbidity and Mortality at a Winter Feeding Station

PAUL A. STEWART

During the winter of 1987-88, I was able to make some observations on morbidity and mortality among the birds using two feeders at my home in Oxford, North Carolina. One feeder was a table 1.2 m square and 1.2 m high, located in front of a window. The second feeder was a cement driveway located about 10 m from the first. The food placed on the driveway was 3 m from a small red cedar *(Juniperus virginiana).* A rose bush was located12 m from the driveway feeding site and 22 m from the window feeder. A loblolly pine (*Pinus taeda)* and a box elder *(Acer negundo),* about 12 and 6 m tall, respectively, were located within 18 m of both feeders.

Sunflower seeds on the table feeder were used mostly by Carolina Chickadees *(Parus carolinensis).* Tufted Titmice *(P. bicolor),* Evening Grosbeaks *(Coccothraustes vespertinus),* and House Finches *(Carpodacus mexicanus).* Chicken scratch feed, consisting of cracked corn and wheat, was used on the driveway and attracted Mourning Doves *(Zenaida macroura),* Blue Jays *(Cyanocitta cristata),* House Sparrows *(Passer domesticus),* Northern Cardinals *(Cardinalis cardinalis),* Rufous-sided Towhees *(Pipilo erythrophthalmus),* White-throated Sparrows *(Zonotrichia albicollis),* and Song Sparrows *(Melospiza melodia).* Use of the feeders increased after a heavy snowfall on 7 January 1988.

Birds were judged to be morbid when they consistently carried their head and body plumage fluffed out. They often remained alone at the feeder after conspecifics departed and then showed reduced reactivity to disturbance. When leaving the feeders, they sometimes hopped instead of flew.

Counting sick and dead birds to measure the levels of morbidity and mortality was made difficult by the presence of house cats. Of two dead birds left available after discovery, one (a female House Finch) was gone within two hours and the second (a male House Sparrow) was removed by a cat after eighteen minutes. A third bird (a male Northern Cardinal), stunned after flying into a window, was snatched by a cat immediately.

Cats often jumped onto the feeder table or waited beneath the branches of the red cedar nearest the driveway in an apparent effort to catch birds. However, I observed only one successful attempt; that on a morbid female House Sparrow at the driveway feeder. In the absence of cats, morbid birds were observed to hop from the driveway feeder to the nearby rosebush. House cats were seen exploring around this bush on at least two occasions. Feathers of a female Northern Cardinal under this bush provided evidence that at least one bird had died and been eaten there. At least eight morbid House Finches were observed at the window feeder with no knowledge of their subsequent fate. As these eight birds were seen at different times, the possibility of some duplication existed.

No attempt was made to estimate numbers of birds of the various species using the feeding stations because it was felt that capturing and marking the birds would have exposed them to additional hazards. Consequently, no estimate can be made of the proportion of the total population affected by morbidity and mortality and the observations reported must be considered anecdotal.

House Finches were most abundant both among the birds coming to the feeders and among those found morbid or dead. As only House Sparrows, Northern Cardinals, and House

Finches were found morbid or dead, it is suggested that these species may have been more susceptible to injury from snow-cover than the other species visiting these feeders.

The increased use of artificially provided food during snow-cover suggests that snow provides new stress in the birds' search for adequate food. Consequently, the levels of morbidity and mortality observed at my feeding stations during a time of snow-cover is assumed to be higher than when such stress is absent. It is implied that snow-cover is a special hazard to at least some species of birds wintering in North Carolina. Unfortunately, it is not known to what extent morbidity and mortality was caused or hastened by snow-cover.

Even with the apparantly large number of cats near the feeders, the observable impact of these predators on the bird population was minor. The Northern Cardinal, captured after injuring itself in collision with a window, was the only apparently healthy bird to fall prey to a cat.

Carolina Chickadees and Tufted Titmice showed a tendency to come alone to the window feeder, creating less attraction to would-be predators than the highly gregarious House Finches. Similarly, morbid House Finches often remained behind to feed alone after their healthy associates left en masse. A Sharp-shinned Hawk *(Accipiter striatus),* visiting the area on 10 January 1988, pursued a departing flock of House Finches instead of capturing the laggard bird at the feeder. This provides an example of an apparent advantage to solitary feeding. I presume that the outcome could have been different if the predator had been a house cat.

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Breeding Status of the Northern Harrier in North Carolina

DAVID S. LEE and E. WAYNE IRVIN

Despite the fact that the Northern Harrier *(Circus cyaneus)* is a regular, although not particularly common nesting bird on the nearby Delmarva Peninsula (Kain, 1987; Robbins and Boone, 1984), there is little hard evidence of these birds breeding in coastal North Carolina. The only published reports of breeding are an unsuccessful nesting attempt near Frisco, Dare County, NC (Pearson et al., 1942) and the revised 1959 edition of the Birds of North Carolina mentioned a 19 April 1891 inland nesting record for Bertie County. Coues (1891) listed this species as "very common, resident" of Ft. Macon, but provided no evidence of nesting for this or most other species that he considered residents. Smithwick (1897) considered these birds as "common residents in the east, probably breeding." During the last few years records obtained by ourselves and others suggest a small but regular nesting population along the north-central North Carolina coastal area. These records are regarded as the southern limit of breeding for this raptor in North America.

Areas of breeding season occurence are presented in Table 1, with the majority of records coming from Ocracoke and Cedar islands. An increase in reported sightings in the last decade may or may not represent a real increase in nesting season birds. Documentation of nesting is particularly difficult for this species because of the early arrival and late departure dates

Table 1

Breeding season records of North Harriers in North Carolina

Date	Location	Evidence	Reference
19 Apr 1891	Bertie Co.	nest	Pearson et al. 1959 revision
20 May-14 June 1936	Dare Co., Frisco	nest and eggs	Pearson et al. 1942
2 June 1979	Carteret Co., Cedar Is.	pair	Chat 43:97
3 June 1979	Hyde Co., Ocracoke Is.	pair	Chat: 43:97
31 May 1980	Carteret Co., Cedar Is.	male carrying food	Chat 44:114 NCSM records
early June 1980	Dare Co., near Manns Harbor	several sightings	NCSM records
2 June 1980	Carteret Co., Cedar Is.	one bird	Chat 45:20
22 June 1981	Carteret Co., Cedar Is.	five birds	Chat 46:22
31 May 1982	Carteret Co., Cedar Is.	two birds	Chat 46:118 NCSM records
10 June 1982	Washington Co., Lake Phelps	two females or immatures	Chat 47:28-29
June 1982	Carteret Co., Cedar Is.	several birds	Chat 47:28-29
June-July 1983	Carteret Co.	four or five (non-breeders?)	Chat 48:20
spring 1984	Hyde Co., Ocracoke Is.	nest & young	NCSM records
spring 1985	Hyde Co., Ocracoke Is.	several birds	NCSM records
7-21 June 1986	Hyde Co., Ocracoke Is.	several birds 2 adult males	NCSM records
21 June 1986	Dare Co., Manteo marshes	one bird	NCSM records

of migrant and wintering individuals. While the bulk of fall migration is in October and November, inland records would indicate occasional individuals present as early as 4 July (Chat 45:20). Most birds depart by Mid -March, but late migrants linger until at least 16 May (Chat 45:106), and Holmes had an inland record for 8 June 1951 (Chat 18:48), suggesting that non-breeding individuals are present throughout the year. At any rate, late or lingering migrants are certainly present during the mid-April to early June presumed nesting period.

The majority of the evidence of recent nesting is, unfortunately, simply sightings of birds between the period of extreme dates for migration. In that most, if not all, of the late and early migrants are presumed young of the year birds, the presence of birds in adult male plumage at several sites is suggestive of breeding. One adult male seen on 31 May 1980 carrying food, is indicative of nesting also (see Table 1).

In the spring of 1984, the staff of the Cape Hatteras National Seashore in formed us of a Northern Harrier nest with young on Ocracoke Island. Although information is sketchy, it appears that at least four pairs (2 on Ocracoke Island) were present in the state during 1986. Based on total number of reported nesting sites for the state during the last decade, it seems probable that fewer than a dozen pairs are present during any given nesting season.

The information presented here is incomplete, but we hope it will inspire additional confirmation of breeding. We thank Bonnie Strausser, U.S. Fish and Wildlife Service, for calling the 1984 nesting record to our attention.

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General Field Notes

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Eared Grebes in Sumter County, S.C.

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On 17 March 1987 at 1100 hours we saw three Eared Grebes (*Podiceps nigricollis)* on a sewage treatment plant at Campbell Soup Lagoon, 8 km south of Sumter, Sumter County, S.C. The birds were with an assortment of ducks: Ruddy *(Oxyura jamaicensis),* Canvasback *(Aythya valisineria),* Ring-necked *(Aythya collaris),* Shoveler *(Anas clypeata),* and scaup sp.

The birds, one in basic plumage and the other two in alternate plumage, were approximately 100 m away. We watch them through a 55x Celestron telescope.

The 16 ha pond had been drained for several months and had been refilled for about seven weeks. The grebes stayed closed to each other and with the raft of ducks.

We returned nine days later and found the grebes still present. The two birds in alternate plumage had begun molting into basic plumage. Also, two Horned Grebes *(Podiceps auritus)* had joined the Eared Grebes on the pond and we were able to compare the two species. By 8 April, the third bird had almost completed its molt, and the two Horned Grebes were no longer there. On 21 April, only one Eared Grebe was present and one Horned Grebe was again on the pond. On 24 April, no grebes were found.

(EDITOR'S NOTE: Eared Grebes have been seen in the interior of South Carolina previously (Chat 39:90-91, 1975). This is the first documented record for Sumter County.—WP)

Atypical Nest-Site if the American Oystercatcher in South Carolina

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A pair of American Oystercatchers *(Haematopus palliatus)* nested near the mouth of the Cooper River on an abandoned concrete and wooden barge, located one km south of the bridges which connect Charleston and Mount Pleasant.

The barge is in decrepit condition and about 10 x 30 m in surface area. Vegetation is scanty on top of the fairly level surface which contains numerous broken pieces of old mortar, wood chips, and pieces of shell. At high tide, the surface of the barge is approximately 1.2 m above water, while at low tide the barge lies on a mudflat above water and the surface then is 2.5 m above the mudflat. Above the shoreline and a narrow contiguous saltmarsh is a spoil site which has one dike that parallels the shoreline and rises 10 m above it. The barge is 45 m from upland habitat. The pair of Oystercatchers nesting on the barge were easily watched from this dike.

I watched the pair of Oystercatchers for approximately one hour on 22 May 1985. Several behaviors were noted: 1) The mate announced its arrival to the incubating bird by using the Weep-call, which is a contact call of the pair, cf. Eurasian Oystercatcher *H. ostralegus* (Cramp 1983:31). 2) The pair was highly territorial. One bird exchanged places at the nest and the bird which left the nest called after leaving the barge, cf. Nest-relief of the Eurasian Oystercatcher (Cramp 1983:28)

The incubated eggs were not seen, but the above behaviors clearly indicate American Oystercatchers were breeding on the barge. The pair did not behave aggressively toward other species that visited the barge, i.e., one Spotted Sandpiper *(Actitis macularia),* up to four Red-winged Blackbirds *(Agelaius phoeniceus),* and up to ten Boat-tailed Grackles *(Quiscalus major).*

W. Post and I revisited the site on separate occasions more than two weeks after the original discovery of the incubating Oystercatchers. The pair was present on the barge but the outcome of the nesting attempt is unknown.

The pertinent literature mentions four breeding habitats (and nest-sites) for North and South Carolina and Georgia: outer beaches, sandy islands, oystershell banks, and spoil islands (Bent 1929, Pearson et. al. 1942, Burleigh 1958, Kilham 1979, Rappole 1981). Thus, nesting of American Oystercatchers on a barge is atypical in South Carolina, though it is similar to nesting on small spoil islands, habitat which is also an artifact of man's activities. Eurasian Oystercatchers may frequently use atypical nest-sites, including artifacts such as roofs, tops of walls, posts or other structures (Cramp 1983, Munro 1984). It is possible American Oystercatchers may use atypical nest-sites more frequently in South Carolina than documented herein.

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Massive Roost of Fish Crows at Drum Island, Charleston, South Carolina

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I watched a massive roosting flight of Fish Crows *(Corvus ossifragus)* at Drum Island, Charleston, S.C. from 13 to 17 November 1985. On each evening, I estimated the number of Fish Crows as they approached the roost. My estimates ranged from 45,000 to 60,000 crows (counts on 14 and 15 November with W. Post). We found it difficult to count crows with great accuracy, though I believe the estimate of 45,000 should be regarded as an absolute minimum. Crows were impossible to see approaching the roost from several directions. Scouting trips prior to and after my counts indicated relatively few crows approached the roost from these directions, though the number was perhaps 2,000 to 3,000 birds.

The great majority of crows approached the roost from the west and northwest directions. The greatest concentration occurred at the Romney Street dump along the Cooper River, just 3 km north of the roost. Crows flew from here directly to the roost or stopped at pre-roost staging areas on old disused barges alongside salt marshes north of the Cooper River bridge, on rooftops of buildings at the Charleston Port Authority Terminal (directly across from the roost site at the southern tip of Drum Island south of the Cooper River bridge); or on trees, telephone lines and poles, ship masts and spars, and other structures near the roost. The location of other pre-roost staging areas at a distance farther away than the Romney Street dump is not known. Fish Crows do cross both the Ashley and Cooper Rivers to reach the Drum Island roost. The preponderance of Fish Crows seen flew in over the peninsula of Charleston and North Charleston, from tidewater and open residential areas favored by this species.

The duration of passage of the roosting flight to Drum Island varied from 26 to 30 minutes. Time of arrival at the roost varied from 5 minutes before sunset to 26 minutes after sunset. The most concentrated movement each evening occurred from 10 to 24 minutes after sunset, when one extended flock accounted for approximately 75% of all crows each evening. The greatest concentrated movement was 4000 crows per minute. The Fish Crows flew from 10 to 60 m high, lower than Post (1961) observed them in evening flights to a roost near Aiken. Herons and bitterns flew lower than the Fish Crows when approaching the same roost site at Drum Island.

My observations of flock behavior at pre-roost staging areas are similar to Post's (1961, 1967). Unlike Post, however, I found Fish Crows vocal when making the final flight in the evening to the roost. Calling was least frequent during the most concentrated movements to the roost. Some play behavior was accompanied by 'caaach' calls, low intensity calls which may occur in agonistic contexts.

The previous fall (1984), W. Post and I estimated that 10,000 Fish Crows used the Drum Island roost on 28 and 29 November (McNair 1985). Post (pers. comm.) stated that the roost declined in numbers soon thereafter. My counts on 4 and 5 February 1986 of 11,000 Fish Crow also indicate that Fish Crow numbers in midwinter were lower than in the late fall of 1985 at the Drum Island roost. Apparently, many of the Fish Crows in November are still migrating south, which agrees with the published information elsewhere (McNair, in press).

Sprunt and Chamberlain (1970:617) remarked that an "enormous" roosting flight of Fish Crows occurred at Runnymede on the Ashley River in 1794 and still persisted though in diminished numbers. The only current roost site known in the Charleston area is at Drum Island, though other sites have not been searched for recently. More precise counts are needed at Drum Island and other roost sites if they exist to determine the population of this species during the non-breeding season.

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Second Documentation of Rufous Hummingbird in South Carolina

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A female Rufous Hummingbird *(Selasphorus rufus),* was discovered at a residence on Terramont Avenue in Greenville, S.C., during mid-December 1985. Charlie Wooten and I saw it on 28 December 1985. The green back and rufous tail were easily visible from 1 m through a kitchen window. Between foraging bouts it perched on shrubs within 12-18 m of the feeder.

For documentation we captured the bird with a hummingbird feeder trap, measured, photographed and released it. Measurements were as follows: chord of wing, 47 mm; total length, 80 mm; bill, 22 mm. All documentation of the specimen, including a tail feather, are on deposit at the Charleston Museum (two Kodachrome slides: ChM 1987.52.1-1987.52.2; one black-and-white print: ChM 1987.52.3; a group of 16 undertail and uppertail coverts, and one rectrix: ChM 1987.52.4).

Fourth Documented Occurence of the Sprague's Pipit in South Carolina

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The Sprague's Pipit *(Anthus spragueii),* is a rare winter visitor to South Carolina, and has been documented by only three specimens (South Carolina Birdlife, 1970, pp 421, 620). Below we report the fourth instance of specimen/photographic documentation for the state.

At Huntington Beach State Park, Georgetown County, in the early afternoon of 29 November 1986 a group of birders led by J. Eades spotted a Sprague's Pipit in the grassy dunes between the two lagoons just south of the jetties. We were told of the bird, and R, Bieber was able to obtain two Fugichrome photographs using a 300 mm telephoto lens (ChM Nos. 1987.53.1, 1987,53.2). The photographs have been examined by W. Post and S.A. Gauthreaux, and our identification was confirmed. We thank Julie Findlayson for her help.

First Verified Record for Forster's Terns Nesting in S.C.

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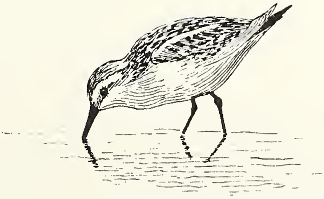
During June 1987 we found three groups of nesting Forster's Terns *(Sterna forsteri)* on Cape Romain, S.C. Wilkinson and Steven Kyles discovered eight nests on 3 June 1987 on West White Banks. The Forster's Terns were associated with nesting Gull-billed Terns *(Sterna nilotica),* Laughing Gulls *(Larus atricilla),* and American Oystercatchers *(Haematopus palliatus).* The highest nest count at West White Banks was nine on 8 June.

All Forster's Terns nests were placed on wrack (3-6 cm high) located on unvegetated sandbars above mean high water. None of the nests that we examined were elevated more than 10 cm, as has been observed in marsh-nesting Forster's Terns along the mid-Atlantic Coast (Can.J.Zool. 65:1417, 1987).

On 1 July we inspected other tern colonies in the north section of Cape Romain, and on Marsh Island discovered two pairs of Forster's Terns that were nesting in close association with Gull-billed Terns. One pair had two downy chicks, and the other pair was incubating three eggs. Two Forster's Terns nests were also found on Raccoon Key in association with Black Skimmers *(Rynchops niger),* Gull-billed Terns, Little Terns *(Sterna autillarum)*, and Common Terns *(S. hirundo).* Only three nesting pairs of Forster's Terns remained on West White Banks. On 15 July 1987 Wilkinson, Sidney Gauthreaux and Will Post noted that Forster's Terns had left West White Banks and Marsh Island, but were still on Raccoon Key.

These observations represent the first verified nesting reconds of Forster's Terns in South Carolina. A previous nesting report from South Carolina exists, but its validity is uncertain. It is based on identification of a set of three eggs collected by M.T. Cleckley from Bird Bank (Cape Romain) on 24 June 1904 (Auk 62:639, 1945). As the collector did not identify the birds that had laid these eggs, and as there is a high degree of overlap in the size and coloration of Forster's Tern and Common Tern eggs, the identification of the clutch is questionable.



First Wilson's Warbler Collected on the Coast of South Carolina

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In 1984-1986, we mist-netted two Wilson's Warblers *(Wilsonia pusilla),* in Charleston County, South Carolina. The first was caught by Green on 18 October 1984 at Hog Island, Mount Pleasant, in coastal scrub *(Celtis-Myrica-Baccharis)* at the edge of a salt marsh. The bird (ChM 1987.3.231) was an immature female; weight, 7.1 g; wing chord, 51.7.mm. The second bird (ChM 1987.3.232), a male of undetermined age, weighed 6.5 g and had a wing length of 54.5 mm. Coleman caught the bird in a wax-myrtle *(Myrica cerifera)* coppice near Fort Moultrie, Sullivan's Island on 14 October 1986.

Although three specimens of Wilson's Warbler have been secured in the Piedmont, at Clemson and Chester (Contr. Charleston Museum XI:484-485, 1949), we can find no evidence that a coastal specimen has been taken before, and indeed Burton (Suppl. Contr. Charleston Museum XI:626, 1970) says that “on the coast it is extremely rare.” Norris (Contr. Charleston-Museum XIV:58, 1963) reports that J.B. Hatcher picked up a specimem under a TV tower near Aiken (Beech Island) on 17 October. The location of this specimen is unknown, and it would be the only specimen for the upper coastal plain.

The little information that we now have on this species indicates that it is a rare transient throughout the state, 5 September-9 November and 25 March-19 May.

Attempted Nesting of Marsh Wren in Guilford County, N.C.

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On the morning of 3 July 1987, the distinctive song of a Marsh Wren *(Cistothorus palustris),* was heard by one of us (HTH) in a clump of cattails *(Typha latifolia),* at the point where Horsepen Creek empties into Lake Brandt, approximately 6 miles northwest of Greensboro, Guilford County, N.C. The bird was singing from one corner of a band of marsh that totals no more than four acres at the west end of one reservoir in the city water system. The vegetation is dominated by Yellow Water Buttercup *(Ranunculus flabellaris),* and a variety of grasses. Cattails occur in four clumps of about two thousand square feet each.

A return trip in the afternoon with chest-high waders allowed sighting the bird. It showed the white supercilliary stripe, and the back stripes. The lack of strong contrast between the back and belly colors suggest that the bird was most probably of the prairie subspecies *C. p. dissaetus,* and not the subspecies of coastal North Carolina *C. p. waynei.*

On 5 July the identification was confirmed by the junior author. The bird was observed singing in flight and carrying nesting material.

Additional visits were made on 7 through 9 July without seeing the bird again. A nest found on 8 July was photographed on 9 July. It appeared to be a classic example of the Marsh Wren "dummy nest".

Marsh Wrens are known as breeders in North Carolina only from the coastal marshes where they are subspecifically distinct from the birds found to the north on the Delmarva Penninsula and those to the south in South Carolina (Pearson, et al., 1942). Migrant birds of the northern and inland races have been found as far inalnd as the mountain counties (Potter, et al. 1980), and coastal birds have been blown inland by hurricanes (Crawford, 1957), but we have found no records of nesting attempts by these birds. The eastern inland subspecies of Marsh Wren is known to breed as far west as Michigan and western Ontario, and as far south as Blacksburg, and Charlottesville in Virginia (Murray, 1952). The species has been recorded as breeding at Kerr Reservoir in Virginia without subspecific identification (Kain, 1987). The presence of this bird in Greensboro in July with a nest suggests a significant inland expansion of the breeding range of this species.

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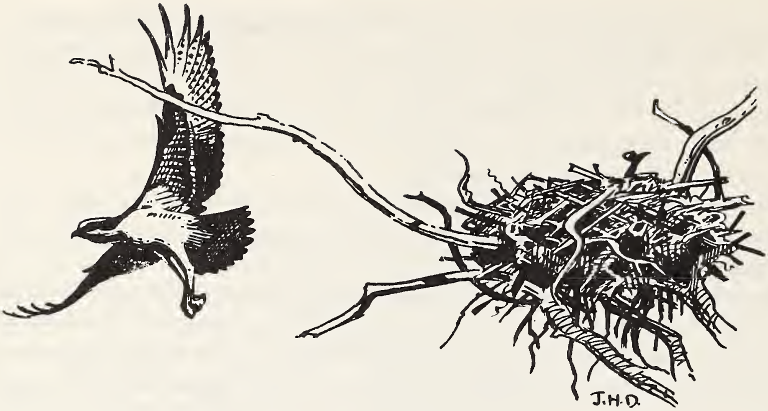


BRIEFS FOR THE FILES

HARRY E. LeGRAND JR.

(All dates winter 1986-87 unless otherwise indicated)
(CBC = Christmas Bird Count)

RED-NECKED GREBE: An excellent count of three grebes was noted by Ricky Davis on 3 January at Fort Fisher, New Hanover County, N.C. One was also seen in the harbor at Charleston, S.C., on 18 February by Dennis Forsythe.

MANX SHEARWATER: This species was noted on pelagic trips off of Oregon Inlet, N.C., by Dave Lee and other birders on several occasions: one on 20 December, three on 21 January, 15+ on 14 February, and three on 25 February.

AUDUBON'S SHEARWATER: Seldom reported off the Carolinas in the colder months, two were seen (one of which was collected) off Oregon Inlet on 21 January by Dave Lee.

WILSON'S STORM-PETREL: Remarkable for North Carolina was the tally of 351 birds on a pelagic trip off Oregon Inlet on 20 December (Bob Odear, Dave Lee, and others). This is the very latest date the species has been seen in Carolina waters.

LEACH'S STORM-PETREL: Dave Lee observed one, and possibly two others, off of Oregon Inlet on 20 December for a very rare winter record.

NORTHERN GANNET: One was somewhat "inland" in Mouse Harbor in northeastern Pamlico County, N.C., on 8 January (Philip Crutchfield).

GREAT CORMORANT: This species is being increasingly seen in the Carolinas. There were at least seven reports in North Carolina: two immatures at Oregon Inlet on 21 February (John Fussell), four birds at Cape Lookout on 4 January (Fussell), and immature at Beaufort on 16 February (Fussell), another immature at Atlantic Beach on 23 December (Robert Hader), a peak count of six birds at Masonboro Inlet on 26 February (Kitty Kosh), a peak of 11 on 4 February at Fort Fisher (Kosh), and 14 on the Southport CBC on 3 January (fide Bill Browkow).

AMERICAN BITTERN: One was seen on the Greenville, S.C., CBC on 21 December by John Batson.

GREAT EGRET: Rare in midwinter was one seen by Dick Thomas on 18 February near Pinehurst, N.C.

CATTLE EGRET: In Currituck County, N.C., 11 were counted by Bob Lewis near Currituck (village) on 2 January and three were noted by John Fussell near Bell's Island on 22 February.

GREEN-BACKED HERON: Quite tardy were single herons on 11 December at Crowders Mountain State Park, N.C. (Paul Hurt) and from 31 December to 5 January in Winston-Salem, N.C. (Barbara Page, Ramona Snavely).

FULVOUS WHISTLING-DUCK: Robert Loftin saw ten on 7 February at Savannah National Wildlife Refuge, S.C. This is apparently the most consistent locale for the species in the Carolinas.

TUNDRA SWAN: Somewhat out of range was an adult seen at Fayetteville, N.C., on 7 December by Philip Crutchfield and Jim Sipiora.

GREATER WHITE-FRONTED GOOSE: Excellent finds were two just north of Lake Mattamuskeet, N.C., on 8 February (Bob Holmes, John Fussell) and two on 15 February at Lake Hartwell near Clemson, S.C. (John Batson and party). At both sites the White-fronteds were with flocks of Canada Geese.

BLUE-WINGED TEAL: Two late teals were observed by Douglas McNair on 9 and 22 December at Hendersonville, N.C.

NORTHERN SHOVELER: One was rare at Hendersonville on 9 December, as seen by Douglas McNair.

EURASIAN WIGEON: Bob Holmes saw a male at an impoundment adjacent to North River in Carteret County, N.C., on 21 December. This is likely the same wigeon he saw there a year earlier.

GREATER SCAUP: The only inland report for the winter was a male noted by Robin Carter at a pond in Richland County, S.C., on 1 February.

COMMON EIDER: Very rare for South Carolina was a female seen at a jetty at Huntington Beach State Park. It was first noted on 5 December by Lex Glover, and it was seen by Perry Nugent and others into February. Another female was seen by John Fussell on 22 January at Cape Hatteras Point, N.C. An unidentified eider was noted by Fussell on the ocean at Rodanthe, N.C., on 21 February.

KING EIDER: A female was seen at Beaufort, N.C., on 21 December by Mike Tove.

HARLEQUIN DUCK: A male was reported by Tommy Tuttle to have been shot by a hunter during the winter near Pamlico Point, N.C.

OLDSQUAW: Good inland finds were nine at Roanoke Rapids Lake, N.C., on 3 January (Merrill Lynch et al.) and one in western Forsyth County, N.C., from 26 January to 5 February (Gray Tuttle and others).

WHITE-WINGED SCOTER: Two or three were uncommon in Mouse Harbor in Pamlico County, N.C., on 8 January (Philip Crutchfield).

COMMON GOLDENEYE: Philip Crutchfield and others saw an immature male at Fayetteville, N.C., from 31 January to 16 March.

COMMON MERGANSER: Rare along the coast were a female in Bogue Sound near Morehead City, N.C., on 21 December (Ricky Davis), two females at a pond in Nags Head, N.C., on 9 January (Sam Cooper), and a male at Huntington Beach State Park, S.C., on 24 January (Greg Cornwell, Pete Worthington).

NORTHERN GOSHAWK: Very rare in the piedmont was an adult seen by Derb Carter in residential Raleigh on 9 December.

ROUGH-LEGGED HAWK: A dark-phase individual was seen near Rocky Mount, N.C., on 1 December by Frank Enders.

GOLDEN EAGLE: Douglas McNair observed an immature on 3 December, and an adult or subadult on 14 January, at Black Balsam Knob in southern Haywood County, N.C. (Readers should be aware that Tennessee Valley Authority biologists have been hacking and releasing Golden Eagles in southern Haywood County for the past several years. Many sightings reported in *The Chat* from the southern mountains of that state are likely of these released birds rather than of migrants from the Far North—HEL.)

MERLIN: The only inland reports for the winter were one seen by Bruce Mack in Columbia, S.C., on 15 January, and another (or the same bird) seen by Mack on the following day about three miles away from the first site.

PEREGRINE FALCON: One was seen in a yard near Reidsville, N.C., in late November and again on 6 December (fide Julia Gunn).

YELLOW RAIL: Highly significant was the reporting of three individuals in grassy fields in northeastern Hyde County, N.C., where this rail is apparently regular in winter. One was accidently shot by a quail hunter on 17 January. Fred Annand gave the specimen to the N.C. State Museum. On 24 January, one was flushed by Ken Read in this same area; and Merrill Lynch and others flushed a third bird on 16 February a few miles away. John Fussell and Jeremy Nance searched for Yellow Rails in flooded marshes in Carteret County, N.C., on 1 January, as extremely high tides were present on that day. Along the North River (north of US 70), they observed two Yellow Rails, along with three Clapper Rails, 25 Virginia Rails, and two Soras.

SPOTTED SANDPIPER: One seen at Harkers Island, N.C., on 4 January (John Fussell) was rare in midwinter for that state.

WHIMBREL: Four were noted by Mike Tove at Beaufort, N.C., on 21 December, and one was observed at Pea Island, N.C., on 24 January by Harry LeGrand and Wayne Irvin.

LONG-BILLED CURLEW: One spent the winter at Fort Fisher, N.C., as it was seen on 14 December by Jeremy Nance and several times by others as late as February.

SANDERLING: Hardly ever seen inland in winter, one was at Sumter, S.C., on 6 January, as noted by Lex Glover and Evelyn Dabbs.

SEMIPALMATED SANDPIPER: John Fussell carefully studied a first-winter bird at Cape Hatteras Point on 2 December, an extremely late record for this species.

LONG-BILLED DOWITCHER: A good count of 35 was made by Kitty Kosh at a spoil pond on Eagle Island near Wilmington, N.C., on 8 January.

AMERICAN WOODCOCK: One heard calling near Franklin, N.C., on the night of 14-15 February by Steve Murphy was an infrequent winter report for the mountains.

RED PHALAROPE: Dave Lee and others had excellent counts on pelagic trips off Oregon Inlet: 525 on 20 December, 429 on 9 January, and 121 on 21 January, plus "lots" on 14 and 25 February. A pelagic trip out of Morehead City, N.C., yielded 52 on 14 February (Harry LeGrand, Jeremy Nance).

BONAPARTE'S GULL: A good island count was 300 at Lake Wateree, S.C., on 10 February (Lex Glover).

ICELAND GULL: A first-winter bird was seen at Hatteras village, N.C., on 30 December by John Fussell. An adult was noted at Cape Hatteras Point on 25 January by Fussell and Jeremy Nance, whereas an adult, apparently a different bird, was there on 1 February (Fussell, John Wright). In South Carolina, an adult was seen in flight at Huntington Beach State Park on 24 January by Pete Worthington and Greg Cornwell.

LESSER BLACK-BACKED GULL: This gull was fairly common during the winter at Cape Hatteras Point, where John Fussell and others saw as many as ten per day. One at Carolina Beach, N.C., from 14 to 16 February (David Wright, Taylor Piephoff, Jeremy Nance) was common in that part of the state.

GLAUCOUS GULL: The only report for the winter was an immature observed by Jeremy Nance at Wanchese, N.C., on 24 January.

BLACK-LEGGED KITTWAKE: Immediately after a storm on 2 December, 17 kittiwakes were seen by John Fussell from shore at Cape Hatteras Point. On pelagic trips, four were seen off Oregon Inlet on 20 December (Bob Odear, Dave Lee, et al.) and 29 were seen off that inlet on 9 January (Lee).

BLACK SKIMMER: As many as 16 skimmers were noted by John Fussell during the winter at Cape Hatteras Point, which is somewhat to the north of the usual range at that season.

ALCID (SP.): A large alcid, thought to be a Razorbill, was seen in the ocean at Fort Fisher, N.C., on 31 January by Mike Tove and Harry LeGrand.

COMMON GROUND-DOVE: Two were seen near the Silver Bluff Sanctuary in southern Aiken County, S.C., on 18 January by Dan Connelly.

SNOWY OWL: The first North Carolina reports in approximately 13 years were sightings in mid-December on a building near Avon (fide Marcia Lyons), on a dune at Bodie Island on 24 December (Lyons), and on a dune—Run Hill—at Kill Devil Hills on 9 January (Sam Cooper). It is possible that just one owl was involved in these sighting.

LONG-EARED OWL: Floyd Williams found a road-killed bird on NC 11-42 about 2.5 miles south of Oak City, Martin County, N.C., on 14 January.

NORTHERN SAW-WHET OWL: One was found dead on US 13-158 near Winton, N.C., on 14 January by Floyd Williams.

NORTHERN SAW-WHET OWL: One was found dead on US 13-158 near Winton, N.C., on 14 January by Floyd Williams.

HUMMINGBIRD: (SP.): Two hummingbirds were seen at a feeder at Atlantic, N.C., in the fall until 24 December (Iris Fulcher), and two more were at a feeder near Marshallberg, N.C., until January (Rosemary Markham). These birds had no red or rufous coloring and could not be identified to species.

RUFOUS HUMMINGBIRD: Two were seen at the New Bern, N.C., feeders of Mr. an Mrs. John Dunn III from October to at least 15 March. Bob Holmes, Rich Boyd, and Dorothy and Roger Foy also observed the birds. One was a female, whereas the other was an immature male with rufous on the rump and lower back. (I reported these birds as Rufous Hummingbirds in my Winter Season report (Southern Atlantic Coast Region) in *American Birds;* however, the editors of that journal changed this report to "Two *Selasphorus,* thought to be Rufous Hummingbirds" (*Am. Birds* 41:271). Observers of these birds are convinced that they were Rufous, and I am not pleased to see them reported as "thought to be Rufous".—HEL)

BELTED KINFISHER: At a high elevation in winter was one seen at 5100 feet at Graveyard Fields in southern Haywood County, N.C., on 22 December and 14 January by Douglas McNair.

RED-COCKADED WOODPECKER: Along the edge of the range were two birds seen by Ricky Davis in a pecan grove near the Rocky Mount—Wilson Airport, N.C., on 21 February.

LEAST FLYCATCHER: Harry LeGrand closely observed one near Lake Landing in Hyde County, N.C., on 28 December. The "whit" call note was given every few seconds. The bird showed a distinct eye ring and was very active as it fed along a woodland edge. This is perhaps a first winter record for the state. A few days later, on 3 January, Jeremy Nance and John Hardwick observed a silent *Empidonax* flycatcher in a hedgerow near Southport, N.C. They believed it also to be a Least, based on plumage and behavior characteristics; they reported it as "*Empidonax* sp." on the Southport CBC.

WESTERN KINGBIRD: Late in departing were one at Gull Rock in Hyde County, N.C., on 28 December (John Fussell) and two along US 158 near Grandy, Currituck County, N.C., on 2 January (Bob Lewis).

SCISSOR-TAILED FLYCATCHER: Most unusual in winter was one found by Marie Harper around Christmas Day in her yard in northern Duplin County, N.C. It was later seen by Ricky Davis, Derb Carter, and other birders until 4 January.

HORNED LARK: Seldom seen along the coast of the carolinas were two at Huntington Beach State Park on 5 December (Lex Glover).

NORTHERN ROUGH-WINGED SWALLOW: Extremely unusual in winter were two seen by Bob Holmes on the New Bern, N.C., CBC on 22 December. He saw four birds there on the following week.

BARN SWALLOW: Bob Holmes reported four at New Bern on 22 December, eight on the following week, and one still present on 1 February. Rather late was one seen by Lex Glover on 6 December near Georgetown, S.C.

FISH CROW: A roost estimated at 10,000 birds was reported by Merrill Lynch along US 264 north of Engelhard, N.C., from 14 to 16 February.

BLUE-GRAY GNATCATCHER: At Jordan Lake, N.C., one was seen on 4 January by Jim Keighton and it or another was near that lake on 17 January (Bill and Margaret Wagner). One was seen on the Greenville, S.C., CBC on 20 December by John McKay, and John Fussell saw individuals on 26 December in Carteret County, N.C., at Morehead City and near Beaufort.

SOLITARY VIREO: Paul Hurt had a few all winter in Crowders Mountain State Park, N.C., as did Harry LeGrand in Umstead State Park, N.C. Douglas McNair saw one at Six Mile, S.C., from 23 to 25 February.

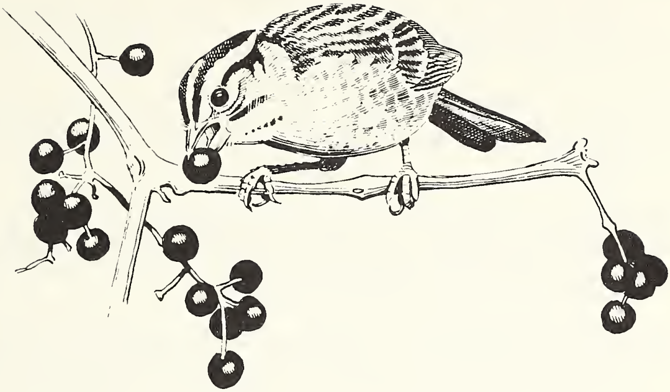
YELLOW WARBLER: Apparently a first for North Carolina in winter was one seen at 15 feet along the causeway (NC 94) at Lake Mattamuskeet, N.C., on 8 February by John Fussell and Bob Holmes. Details supplied by Fussell were: "a very yellowish warbler; dark eye in uniformly yellow face; wings slightly darker with yellow wingbars; yellow tail spots seen very well; breast had faint streaking".

YELLOW-BREASTED CHAT: Single birds were observed near Weldon, N.C., on 7 December (Merrill Lynch) and at Beaufort, N.C., on 21 December (Bill Brokaw).

WESTERN TANAGER: Mary Eriksen had a male tanager at her feeder in western Forsyth County, N.C., from 10 December to 17 February.

INDIGO BUNTING: One tardy individual was seen by John Fussell at Fort Fisher, N.C., on 3 January.

PAINTED BUNTING: An adult male wintered at Joyce Taylor's feeders in Morehead City, whereas a female or immature was seen in a swamp at Wilmington on 21 January by Kitty Kosh.



BACHMAN'S SPARROW: In the sandhills of North Carolina, Jay Carter saw two to three in western Fort Bragg on 22 December and one at Camp Mackall on 7 January. Dave Sibley saw one at the Silver Bluff Sanctuary in southern Aiken County, S.C., on 3 February.

AMERICAN TREE SPARROW: A good find was one seen by Ken Knapp at Jordan Lake on 4 January.

CLAY-COLORED SPARROW: One was seen along the north shore of Lake Mattamuskeet on 28 December by Ricky Davis and Eric Dean. There are only four or five winter records for North Carolina.

LINCOLN'S SPARROW: Four were seen on the Mattamuskeet National Wildlife Refuge CBC on 28 December by Ricky Davis and Harry LeGrand. Other individuals were noted by Merrill Lynch near Weldon, N.C., on 7 December, by Harry LeGrand at Raleigh, N.C., on 20 December, and by Philip Crutchfield near Fayetteville, N.C., on 6 January.

WHITE-CROWNED SPARROW: Rarely reported from the South Carolina coastal plain were three immatures seen by Robin Carter and Lex Glover on 16 January near the Savannah River in Hampton County.

LAPLAND LONGSPUR: For the second consecutive winter, the species was noted at the Charlotte Motor Speedway near Harrisonburg, N.C. Several were seen in December (fide Dick Brown).

SNOW BUNTING: The only winter reports were from the Currituck Banks, N.C., near the Virginia border: 28 on 31 December (Harry LeGrand, Ricky Davis, Bob Lewis, Mike Tove) and 19 on 26 February (John Fussell).

BREWER'S BLACKBIRD: One seen by Hop Hopkins, Jim and Pat Culbertson, and others was a good find at a sewage treatment plant at Winston-Salem, N.C., from 1 to 3 January.

RED CROSSBILL: There are no winter reports other than from the mountains, where they are sporadic all year. Douglas McNair noted as many as seven a day in the Cashiers—Highlands area, N.C., through 17 January.

WHITE-WINGED CROSSBILL: Extremely rare was a female seen at a feeder in Huntersville, N.C., on 16 and 17 February (during a snowstorm) by Eric Johnson, fide Dick Brown.

EVENING GROSBEAK: A modest flight occurred in the Carolinas during the winter, with numbers peaking in February and March. At least 100 were seen at Oriental, N.C., in February by Dorothy Foy, a good total for the lower coastal plain.

BOOK REVIEW

FIELD GUIDE TO THE BIRDS OF NORTH AMERICA (2 ed)

National Geographical Society. 1987. National Geographical Society, Washington. 463 pp. softcover, $13.95 + 3.50 postage. Available only from National Geographic Society (NGS) or other non-profit organizations such as American Birding Association.

When it first appeared in 1983, the NGS guide was one of several new sophisticated field guides to be published within the span of a few months. The test of time has shown it to be superior to its competitors. Thus, in reviewing the revised edition, this observation must be kept in mind. As none of the competing guides (all having strengths and weaknessess) have published revised editions, the comparative value of the NGS guide is strengthened. Rather than focusing directly on the merits of the guide per se, I will focus on the quality of the second edition relative to the first, with particular emphasis on the Carolinas.

According to the press release with the advance copy I examined, NGS boasts that there are "54 new range maps, 5 totally reprinted plates, and 31 revised plates." As most field guide users refer to plates more than text or range maps, I will begin there. Of the 31 revised plates, I was able to locate about half quickly. Of those, approximately 25% pertained to species that occur regularly in the Carolinas. Of the five completely repainted plates, three are pertinent to our region. Perhaps more interesting (and relevant) was that for every one plate improved, I found at least three that equally required improvement and had not been touched. This was a distinct disappointment because I had heard (for years) that the new edition would be "completely redone." While I did not expect perfection (due to obvious time and financial constraints), what I found fell well short of my "realistic" expectations. Perhaps the worst cases of uncorrected plates (from the perspective of a Carolina birder) include: immature gulls in flight and winter-plumaged Phalaropes in which errors range from misleading to categorically wrong.

Of the improved range maps, about 2/3 are pertinent to the Carolinas, but many of the improvements involved only the addition of arrows indicating general migration routes. However, at least sixteen of the revised maps contain errors pertaining to North Carolina alone, some fairly serious. Among the worst are summer (rather than winter) distribution of Manx Shearwater, depicted state-wide breeding of Warbling Vireo (only known breeding from extreme NW corner of the state), and the lack of indicated breeding for Cerulean Warbler in the Roanoke River region (most common and extensive distribution in the state).

I found the greatest number of revisions in the text. Seemingly 50% of entries were updated, many significantly. Although I did not examine every species entry carefully, my impression is that these changes represented the greatest strength of the new edition. However, even here, I found problems. For example, Band-rumped Storm-Petrel is listed as "rare" in the western Atlantic with no mention of its recently discovered "uncommon" status off North Carolina. This is in contrast to otherwise careful inclusion of other new knowledge of seabird distribution off our coast.

Another strength of the new edition is the inclusion of recently discovered extralimital rarities and newly recognized species. The best of these are Clark's Grebe, Red-naped Sapsucker, Eurasian Jackdaw, and Red-breasted Flycatcher. Unfortunately, none of these species have been recorded in our region. Thus, the guide's usefulness increases dramatically for well-traveled birders who have a strong interest in listing. However, to this end, the omission of species such as Brown Shrike (recently occurring in California), but inclusion of much rarer species such as Pallas' Reed Bunting (holdover from first edition) results in an uneven treatment of this group. Perhaps more serious is the exclusion of the newly recognized Arctic Loon (vs. Pacific), particularly as the new edition's plate of Pacific Loon has been "corrected" to show a relatively dark nape in breeding plumage. This is a mark of the Artic Loon, not Pacific.

The question now comes down to the investment value of the book. As I said at the outset, I think that this guide is the best overall guide to have in the field. The detail of information and species coverage was (and is) superior to its competitors. Thus, if you do not have a copy of either edition, I recommend the second edition (the first is no longer available). However, if you already own a copy of the first edition, unless you like to collect bird books or plan to visit Attu a lot, save your money for something else.—M.H. Tove.

Carolina Bird Club
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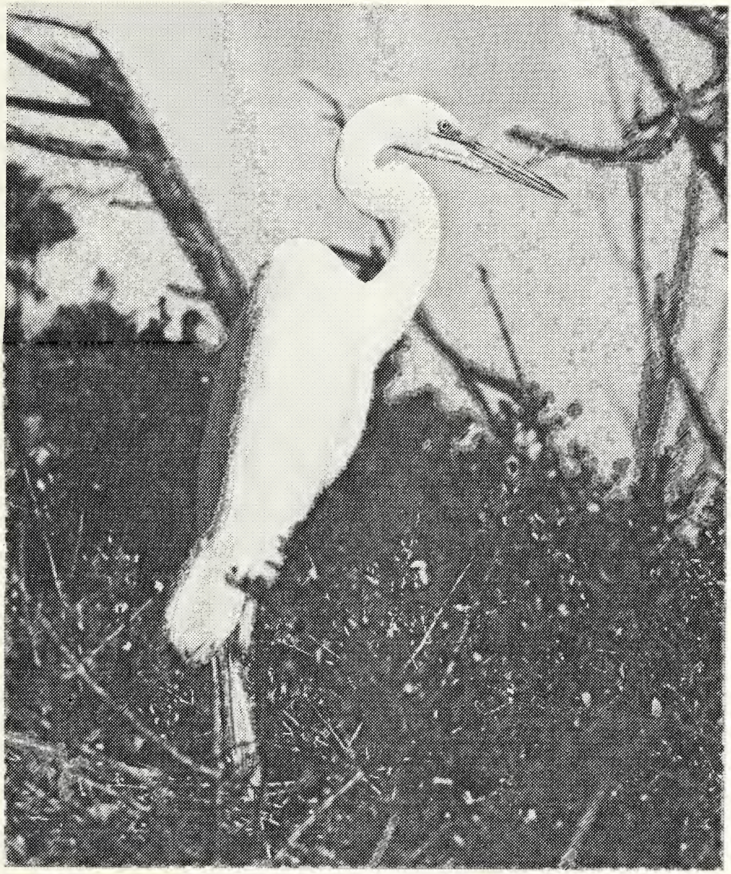

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THE CHAT

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Art and Photography..........................John Henry Dick and Jack Dermid

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OUR COVER—Joel Arrington of the Wildlife Resources Commission submitted this photo of a stately Great Egret.

First Nesting Record for the Bald Eagle on the Savannah River Plant

JOHN J. MAYER,[1] ROBERT A. KENNAMER,[1] and FRANKIE A. BROOKS[2]

Documented occurrences of Bald Eagles (*Haliaeetus leucocephalus*) on the Savannah River Plant (SRP) have been uncommon but persistent since May 1959 (Norris 1963; Mayer, Hoppe and Kennamer 1985; Mayer, Hoppe and Kennamer 1986). The SRP is a 780 km² federal nuclear production facility located in Aiken, Barnwell and Allendale counties of South Carolina which has been closed to public access since 1952 (Langley and Marter 1973). A recent increase in the number of sightings of Bald Eagles on the SRP has been reported, with a total of 46 adult and 12 immature birds observed on the site between 10 September 1984 and 4 January 1986 (Mayer, Hoppe and Kennamer 1986). However, despite the increased sightings of this species and the presence of a substantial amount (approx. 5,353 ha) of the habitat suitable for Bald Eagle foraging and roosting on the site, there have been no Bald Eagle nesting activities documented for the SRP (Mayer, Hoppe and Kennamer 1985; Mayer, Hoppe and Kennamer 1986).

The number of active Bald Eagle nesting territories in South Carolina had increased from 3 in 1977 to 34 in 1985 (Murphy and Coker 1978; T.M. Murphy, Jr., pers. comm). Of the 38 active nests located in the state prior to June 1986, 34 were located within the coastal zone. The four remaining nests were situated at inland locations (South Carolina Wildlife and Marine Resource Dept. pers. comm.).

During the first week in June of 1986, the presence of a Bald Eagle nest on the SRP was reported to the USFS Savannah River Forest Station (SRFS) by personnel from the University of South Carolina Archaeology Unit working on this federal facility. On 5 June 1986, the nest site was visited by personnel from both the South Carolina Wildlife and Marine Resources Department and SRFS to verify the report. During these site visits, one adult and one immature Bald Eagle were seen either flying above the site or perching next to the nest.

On 6 June 1986, Mayer and Brooks visited the site with another SRFS staff member. The site was an approximately 2.5 ha flooded beaver (*Castor canadensis*) pond in the bottomland portion of a drainage near the Par Pond Reservoir System on the SRP. The nest (Figure 1) was located in a 14 m tall live bald cypress (*Taxodium distichum*) situated in the central area of the open flooded portion of the shallow pond. The nest was constructed approximately 2.5 m below the top of the tree. The surface of the pond was almost completely covered with floating-leaved and emergent vegetation, indicating that the Bald Eagles were probably foraging elsewhere for food. The water level in the pond apparently was maintained by the active beaver colony at the site.

At that time, two immature birds were observed perching around the nest. No adult birds were seen. After about two hours of observation, an approaching helicopter caused the two immature birds to leave the nest and fly north away from the pond. The adult bird was observed later at the nest site and noted to have a patagial tag on its left wing. This indicates that the bird had been tagged as a fledgling in a nest somewhere along the South Carolina coast north of Charleston between 1978 and 1981 (T.M. Murphy, Jr. pers. comm.) The adult also

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was observed to have a left leg band (T.M. Murphy, Jr. pers. comm.). An adult Eagle with an identical wing tag was seen on the Par Pond Reservoir in September of 1984 (Mayer, Hoppe, and Kennamer 1986).

This same location had been checked by Kennamer in September 1985 during a sitewide aerial search of the SRP for Bald Eagle nests. No nest was either observed in the field or later detected in the photographs of the site taken at that time, confirming that this was the first year for Bald Eagle nesting activity in that beaver pond.

Reports and sightings of the single adult and two immature birds at the nest site continued through August 1986. No birds were seen at the nest during September. The tagged adult bird was observed again at the nest site during October. Also during the month of October, both the immatures and the adult were seen at several locations on the SRP. From the end of October until the early part of January 1987, none of the birds were reported to have been observed anywhere on the plant site.

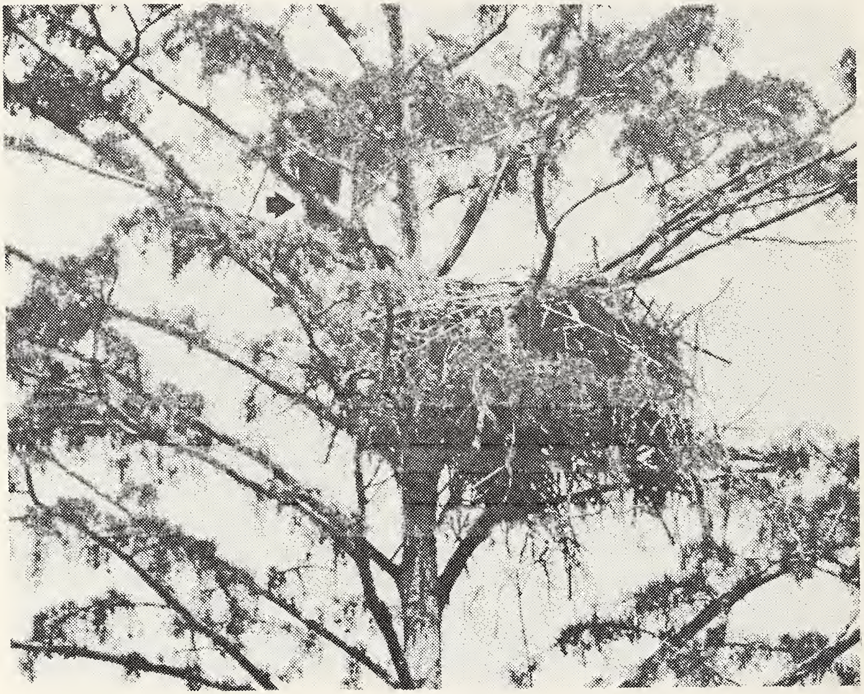

Fig. 1 Appearance of the SRP Bald Eagle nest during the 1986 nesting season. Note one of the immature birds (see arrow) partially concealed by foliage and perched to the left and above the nest. (Photo by J.J. Mayer)

During the middle of January 1987, two adult Bald Eagles were seen at the nest site. One of the birds was observed to have a patagial tag identical to the adult from the previous year. The other adult, somewhat larger in size than the marked bird, did not appear to have any wing tags or leg bands. Since Bald Eagle mated pairs tend to return to nests of the previous year (Sprunt and Chamberlain 1970), it is highly likely that this is the same pair of birds which initiated the nest in 1986. As of that observation, the birds had enlarged the nest from the previous year. During late January, one of the birds was seen to be sitting deep in the nest. On 17 March, two Bald Eagle chicks, estimated to be approximately two weeks old (T.M. Murphy, Jr. pers. comm.), were observed in the nest. Between then and 29 May, both immatures and one or both adult birds were seen in or next to the nest on several occasions. During that period, the adult Bald Eagles were observed bringing back and feeding both fish [usually largemouth bass (*Micropterus salmoides*)] and American Coots (*Fulica americana*) to the two immature birds. On 1 June, only one of the immatures was seen with the adults. These three individuals were observed through 17 August at the nest site. No sightings were reported from that date until late October.

On 23 October, both adult birds had returned to the site and were observed enlarging the nest. Based on the courtship behavior noted at that time, the smaller bird was determined to be a male and the larger bird a female (T.M. Murphy, Jr. pers. comm.)

In addition to being the first nesting record for this species on the SRP, this record is significant because it is the second most inland nesting site recorded in South Carolina and it is the most inland nesting site along the Savannah River Drainage (Georgia Dept. of Natural Resources pers. comm.; South Carolina Wildlife and Marine Resources Dept. pers. comm.). The next nearest Bald Eagle nesting site in South Carolina is 115 km to the southeast (South Carolina Wildlife and Marine Resources Dept. pers. comm. Chat 48:20), and in Georgia is 192 km to the east (Georgia Dept. of Natural Resources pers. comm.).

Based on a territory size of approximately one km in diameter, the Par Pond Reservoir System could potentially support as many as six nesting pairs of Bald Eagles (T.M. Murphy, Jr. pers. comm.). Since this impoundment has high densities of fish (Bennett and McFarland 1983) and is protected from public access (Dukes 1984), this locality could serve as an important sanctuary for future nesting efforts by this endangered species.

Acknowledgements.

We thank John G. Irwin, Michael B. Caudell and Thomas M. Murphy, Jr. for the information which they provided for this report, and Roger W. Pitts for initially leading JJM and FAB to the nest site. We are also grateful to I. Lehr Brisbin, Jr., and William D. McCort for critically reading this manuscript. This work was supported by Contract DE-AC09-76SROO-819 between the Institute of Ecology at the University of Georgia and the United States Department of Energy, and Cooperative Agreement DE-AI-09-76-SR00054-M-A052 between the United States Forest Service and the United States Department of Energy. The report was prepared with support provided by Law Environmental,Inc.

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General Field Notes

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Oldsquaw in Sumter County, S.C.

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On 21 April 1987, at approximately 1200 hours, we found a female Oldsquaw (*Clangula hyemalis*) on a sewage treatment plant at Campbell Soup Lagoon, 8 km south of Sumter, Sumter County, S.C. The bird was in definitive basic (dark) plumage. The bird was with a small raft of ducks: Ruddy (*Oxyura jamaicensis*), Ring-necked (*Aythya collaris*), and Blue-winged Teal (*Anas discors*). We watched the bird through a 55X Celestron telescope at a distance of about 75 m.

When we returned on 24 April, the bird was no longer there.

(S.C. EDITOR'S NOTE: This appears to be the first documented record of the Oldsquaw from Sumter County, although several occurrences have been reported from other interior counties (see South Carolina Birdlife, 1949, and Supplement, 1970).—WP)

CBC Rare Bird Alert
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Double-crested Cormorant Nesting in South Carolina

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For many years the Double-crested Cormorant (*Phalacrocorax auritus*) has been suspected of nesting in South Carolina. Wayne (*Birds of South Carolina,* 1910, p. 12) saw Double-crested Cormorants on the coast during the summer, and he believed that they bred, although not "near salt water." The species has been nesting in North Carolina, in freshwater sites near the coast, since at least 1898. T.G. Pearson (*Birds of North Carolina,* 1942, p. 19) found the first North Carolina nest on 25 May 1898 at Great Lake in Craven County.

On 25 July 1985 at the east end of Lake Marion, Clarendon County, South Carolina, we saw a cormorant flying with a stick in its beak. We followed the bird in our boat for about 1 km to a tall dead tree near the center of the lake. The site is about 3 km from the lake's edge. The cormorant carried the stick to a nest about 17 m above water (Fig. 1). The nest was in a crotch off the main trunk. Another nest in the same tree, at about 14 m, had three young that were climbing out. The upper nest had eggs or small young, as an adult began brooding after it added the stick. High winds associated with Hurricane Bob prevented our searching further.

We returned to the colony 30 July and counted 15 nests that had brooding adults or that had large young in the nest. All the nests were too high to examine from above. In addition to the young in the 15 nests that were in use, we saw 16 juveniles. These presumably came from other nests, or from earlier, successful nestings of the pairs then brooding.

Average height above water of 10 nests was 9 m, with a range of 4-14 m. Eight of the dead trees held single nests, two had two, and one had three. The trees could not be identified, as the bark and foliage were gone, but they were probably Bald Cypress (*Taxodium distichum*). We doubt that any other species of trees would stand after 40 years' inundation. The colony covers a roughly circular area about 1 km in diameter. The average nearest neighbor distance between nine nest trees was 250 m; range, 5-1000 m.

On 11 August we returned to the site and noted that 10 nests were still being attended by adults.

The cormorants nesting in this colony presumably belong to the race *P. a. floridanus,* although specimens collected by Pearson at Great Lake, N.C., varied in size between typical *floridanus* and the northern race *P. a. auritus* (Birds of North Carolina, 1942, p. 19).

The large man-made lakes that have become common in the southeast may allow the Double-crested Cormorant to continue to expand its range inland, parallel to the coast. Indeed, in the summer of 1985 K. Kuyper (pers. comm.) found two or three nests of the species at Lake Jordan, near Raleigh, N.C. This record is the first instance of the species' breeding in the interior of North Carolina. Farther north the species, presumably represented by *P. a. auritus,* is moving southward along the Atlantic coast, and is nesting around Manhattan, New York (Kingbird 34:146-155, 1984). An isolated population now breeds at Hopewell, Virginia on the James River, over 100 km from the Atlantic (Wilson Bull. 92:127-128, 1980), but its geographic origin is unknown.

It is probable that Double-crested Cormorants have only recently begun to colonize the inland lakes of the Carolinas, as few large lakes existed before World War II. Wayne's (1910) summer sightings probably were vagrants, which have often occurred in coastal areas in the summer, far from known colonies.

Acknowledgements: This work was supported in part by Santee-Cooper, South Carolina Wildlife and Marine Resources/Heritage Trust and The Post-Courier Foundation. We appreciate the efforts of Nancy Pringle, who typed several versions of the manuscript.

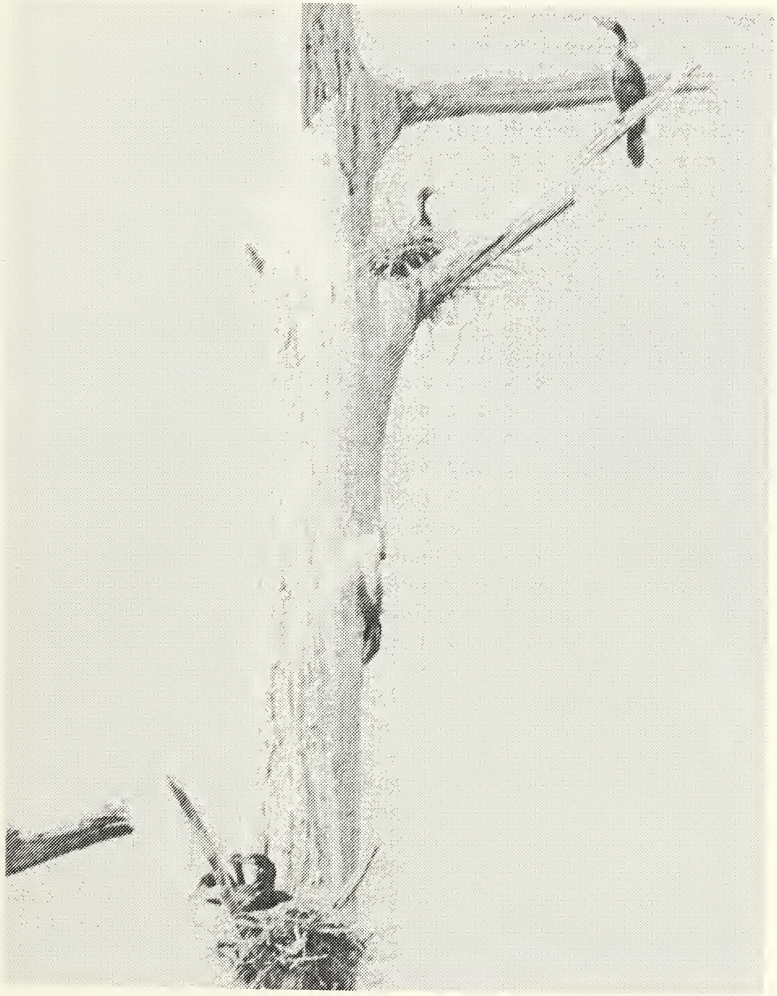

Fig.1 First nests of Double-crested Cormorant found in South Carolina. 25 July 1985, Lake Marion, Clarendon County.

Ash-throated Flycatcher: A New Species for South Carolina

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On 18 February 1976 on my farm in the Beulah Community of Kingstree, Williamsburg County, S.C., I saw a strange flycatcher foraging in a bramble on the edge of an orchard. The specific habitat was an ecotone of mixed secondary growth, with an overstory of gums, pines and oaks, and a sparse understory of catbrier (*Smilax* sp.) and huckleberry (*Vaccinium* sp.). The bird was flycatching among the green leaves of the catbrier, at about 6 m. I was able to secure this individual, which proved to be a male, and, in consultation with W. Post, tentatively identified it as an Ash-throated Flycatcher (*Myiarchus cinerascens*). My identification was confirmed by W.E. Lanyon and J. Bull.

This is the first record of the species from South Carolina. The Ash-throated Flycatcher is a casual visitor to the Southeast, mainly in the winter. Although there are no reports from Georgia, the species is on the North Carolina Provisional I list (one published sight record; Silcock, W.R. 1975. Chat 39:40-43) and Virginia has five records, including two photographs (Virginia's Birdlife, An Annotated Checklist, Virginia Avifauna No. 3, 1987). The present record appears to be the most southerly on the Atlantic Coastal Plain (A.O.U. Checklist, 1983). The study skin is now in the Charleston Museum (ChM # 1988.12.02).

Acknowledgments. I appreciate the efforts of W.E. Lanyon and J. Bull, of the American Museum of Natural History, who confirmed identification of the specimem.

First Nesting record of Ringed Turtle-Dove in South Carolina

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On 28 March 1987, Robert Eggleston and I located a nesting pair of Ringed Turtle-Dove (*Streptopelia 'risoria'*) in his yard, in the Shandon section of Columbia, Richland County, South Carolina. The nest was about 5 m above ground in a tangle of honeysuckle (*Lonicera sp.*) that was supported by a small tree. One bird was on the nest, while the other was in close attendance.

On 30 March, Kay Sisson, Jack and Lu Stewart and I again watched the nesting bird, and J. Stewart was able to obtain photographs (ChM Nos. 1988.10.1 and 1988.10.2).

Robert Eggleston continued to see the birds, and they continued incubating until about 11 April, when he found the nest destroyed. He found one broken egg (ChM No. 1988.10.3) under the nest.

The birds stayed in the area until at least the end of May, but we were unable to determine if they re-nested.

This appears to be the first documented nesting of this species in South Carolina.

(Ed. note: The scientific name *Streptopelia 'risoria'* (with the apostrophes) refers to what is basicaly the domesticated form of the wild African Collared Dove (*Streptopelia roseogrisea*). This is not to be confused with the Eurasian Collared-Dove (*Streptopelia decaocto*) that has invaded southern Florida and appears to be spreading westward into Louisiana. Interested readers are encouraged to study the article by P. William Smith in the Winter, 1987 issue of *American Birds.* —HTH)

Indian House Crow in Charleston County, S.C.: Second Sighting for North America

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On 6 October 1984, Nugent saw an Indian House Crow (*Corvus splendens*) in a shopping center at Mt. Pleasant, Charleston County, S.C. (Nugent, 1984). Through a 20-40 X telescope, Nugent and four others watched the crow for 5 min. The published description (op. cit.) states that it was "a medium-sized crow with a large bill. Its face was black to the point just beyond the eye. The back of the head, neck and upper breast were grayish brown and the back, wings and tail were black.

This individual was identical to one that Nugent and others had seen in September 1974, at the Pitt Street Causeway, Mt. Pleasant. Just before that sighting, Elliott, who is a harbor pilot, brought a ship into Charleston Harbor that had a crow from India on board. According to crew members, who had been feeding the crow, two crows landed on the ship when it was several km off India. One crow was lost in a storm, but the other remained on board until the ship approached Charleston. Elliott watched it fly towards Sullivan's Island.

On 10 December 1985, at 1610, Post saw the same or another individual of this species in front of a Church's Fried Chicken shop in Charleston, next to the Cooper River Bridge. The bird was perched above the street on a light pole. It was silhouetted against the sky, so color patters were not apparent, but the heavy beak was different from that of the Fish Crow (*C. ossifragus*). The crow flew in the direction of Drum Island. Post was able to see the lighter (grayish) color of the nape and breast region. The bird called, giving a low-pitched *uuhrr-uuhrr-uuhrr*, which was quite different from any Fish Crow vocalization that he had heard.

On 11 December 1985 Post searched for the crow again in the late afternoon, and found it perched on the roof of a Piggly Wiggly supermarket across the street from the 10 December location. It competed for food scraps with Fish Crows, and twice supplanted the latter species. The bird could not be found during subsequent December searches.

On 29 October 1986, at 1430, Post saw an Indian House Crow perched on power lines in front of the Moultrie Middle School gymnasium in Mt. Pleasant. It flew down and foraged along the sidewalk, approaching within 10 m of a student sitting on the steps of the gymnasium. On 2 November 1986, at 1345, Post and Kathleen W. Post were able to get good views of an Indian House Crow as it sat on a power line in front of Burger King in Mt. Pleasant. The bird has not been reported since this sighting.

The questions about this bird are: is the 1974 bird the same one that was seen in 1984-1986, and is there only one bird? It is possible that the same bird lasted the 12 years, as other species of Corvidae are known to be long-lived. For example, the Blue Jay (*Cyanocitta cristata*) has been reported living 18 years, 4 months (Clapp, et al., 1983). It is also likely that only one individual is involved, as the species usually associates as pairs or in family groups (Goodwin, 1976) and the bird did not associate with Fish Crows.

That this crow is tame, and frequents the edges of human habitation, where food is available, agrees well with descriptions of its behavior from other parts of its range (Goodwin, 1976).

The bird reported here appears to be the second for North America. The first report was one seen on 19 June 1971 at Brigantine National Wildlife Refuge, by F.B. Gill and B.G. Murray, Jr., (Gill, 1985).

The Indian House Crow is known to hitch-hike on vessels, and has been purposefully introduced or self-introduced to Malaya, Sudan, South Africa, the East African coastal strip, Aden, Egypt, western Australia, Mauritius and elsewhere (see review by Long, 1981). The species is an agricultural pest and disease vector, and it is believed to have decimated a number of native bird species (Ryall and Reid, 1987). Several government agencies are now attempting to eradicate these introduced populations. Observers on the east coast of North America, particularly around port cities, should be alert for this crow. Its arrival and establishment in North America would have profound ecological consequences.

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Second Nesting of the Sooty Tern in South Carolina

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On 3 June 1987, I found a pair of Sooty Terns (*Sterna fuscata*) nesting on the Cape Romain National Wildlife Refuge, Charleston County, S.C. The nest was on a sand spit that had extended in recent years westward from the western point of Cape Island (Lat. 33°0.4′, Long. 79°25.3′). I was accompanied by Stephen Kyles and Tom Kohlsaat of the South Carolina Wildlife and Marine Resources Department. The single egg was in a shallow scrape on bare sand under a small, sparse clump of *Spartina patens.* The egg was slightly larger than nearby Black Skimmer (*Rynchops niger*) eggs and was buff-colored, with fine lilac spots. The nest was on a small dune near the center of a Black Skimmer and Gull-billed Tern (*Sterna nilotica*) colony. There were four Black Skimmer nests 51, 89, 107, and 142 cm from the nest and one Gull-billed Tern nest 127 cm away.

On 8 June, S. Kyles and I photographed one incubating adult. We saw the other member of the pair only briefly. On 30 June we found an almost complete eggshell in the nest. It appeared to have recently hatched. The adult showed defensive behavior of a 1.5X4.5 m clump of Beach Elder (*Iva imbricata*). We found six small Black Skimmer chicks hiding in this clump of vegetation, but were unable to locate the Sooty tern chick.

On 1 July, Chris Marsh, S. Kyles and I returned to photograph the chick. Numerous Black Skimmer and Gull-billed Tern chicks sought the cover of the clump of Beach Elder. However, we were unable to associate either of the adult Sooty Terns with a chick. Again we saw territorial behavior by the Sooty Terns. They flew around the clump in an apparent attempt to discourage chicks of other species from gaining access to the clump of Beach Elder. We also saw and photographed courtship behavior by the pair. This behavior and other evidence cited above suggest that hatching had occurred, but that the chick had not survived. On 15 July, Sid Gauthreaux, Will Post and I returned to determine whether renesting had occurred. Although the pair was still on the territory at this time, they apparently had not renested. Color transparancies of the Sooty Terns are on file at the Charleston Museum.

The first Sooty Tern nesting record for South Carolina was a single pair nesting on Bird Key Stono, also in association with Black Skimmer and Gull-billed Terns (Chat 51:51, 1987).

BRIEFS FOR THE FILES

HARRY E. LeGRAND JR.

(All dates 1987 unless otherwise indicated)
(CBC = Christmas Bird Count)

COMMON LOON: Herb Hendrickson observed 20 loons on Lake Townsend near Greensboro, N.C., on 16 April, a good total for that area.

HORNED GREBE: Very late was one in breeding plumage seen by David Disher at Huntington Beach State Park, S.C., on 28 May.

RED-NECKED GREBE: Seldom seen in breeding plumage in the Carolinas was one in the surf about two miles north of Corolla, Currituck County, N.C., on 7 and 8 April (John Fussell).

NORTHERN FULMAR: On pelagic trips, Dave Lee saw 100+ off Oregon Inlet, N.C., on 7 March, and Harry LeGrand and other observers saw three on 8 March off Beaufort Inlet, N.C. Jay Robinson reported that a Fulmar was caught in a balloon string and washed ashore on Portsmouth Island, N.C., on 26 April; it was released and flew away.

BLACK-CAPPED PETREL: Steve Dinsmore saw 16 off Cape Hatteras, N.C., on 27 March.

SOOTY SHEARWATER: Numbers of this species and other pelagic birds were seen from shore at Cape Hatteras Point, N.C., this spring by Harry LeGrand, Wayne Irvin, David Wright, and other birders. Sooties were seen from 15 to 28 May with a peak count of 55 on 23 May. Peak totals of other shearwaters were 14 Cory's on 25 May, two Greaters on 24 May, and three Audubon's on 28 May.

MANX SHEARWATER: On pelagic trips out of Morehead City, N.C., one was seen on 8 March by Harry LeGrand, Mike Tove, and others, and two were seen on 23-24 March by Derb Carter.

AUDUBON'S SHEARWATER: Seldon seen in the colder months were seven counted by Harry LeGrand and party off Morehead City on 8 March and 28 counted by Derb Carter in the same waters on 23 and 24 March.

WILSON'S STORM-PETREL: The species was seen daily from shore at Cape Hatteras Point in late May, with the peak count of 150 on 23 May (Harry LeGrand, Wayne Irvin, David Wright).

LEACH'S STORM-PETREL: Seldon seen from shore was one observed by Derb Carter over the ocean at Cape Hatteras Point on 14 May.

GANNET: Harry LeGrand, Wayne Irvin, and David Wright counted 60 northbound migrants at Cape Hatteras from 23 to 25 May, late dates for such a large number.

AMERICAN WHITE PELICAN: At least one was present all winter at Charleston, S.C., as reported by Dennis Forsythe and Steve Compton. Another was sighted at Hatteras Inlet, N.C., on 20 March by Bruce Mack.

DOUBLE-CRESTED CORMORANT: Ricky Davis had an excellent piedmont total of 485 at Falls Lake, Durham County, N.C., on 17 April; and Eric Dean observed 30 in flight near Goldsboro, N.C., on 22 May, a notable total for the inner coastal plain.

ANHINGA: An excellent count of 25 to 30 birds was seen at a millpond in central Halifax County, N.C., on 23 April by J.B. Elder. Also in that county were one or two seen again near Weldon, by Randy Yelverton and Frank Enders on 28 April. Breeding has never been noted in that state's northern coastal plain. Also of interest were three seen soaring at Sneads Ferry, Onslow County, N.C., on 12 May by Gilbert Grant.

LEAST BITTERN: A pair was seen in a marshy pond on Occoneechee Neck, Northampton County, N.C., on 2 and 3 May by Merrill Lynch and party.

GREAT EGRET: Rather rare in spring in central North Carolina were one at Winston-Salem on 2 May (David Disher) and one at Greensboro on 21 May (Herb Hendrickson).

SNOWY EGRET: Single birds were unusual near Durham, N.C., on 16 and 17 April (Bill and Margaret Wagner, Johnnie Payne) and at Goldsboro, N.C., on 21 May (Eric Dean).

TRICOLORED HERON: Seldom found inland in spring was one seen by Herb Hendrickson and Peggy Ferebee at Lake Townsend, near Greensboro, N.C., on 16 April.

BLACK-CROWNED NIGHT-HERON: Ruth and Jerry Young noted two migrants at Beaver Lake near Asheville, N.C., on 19 April.

YELLOW-CROWNED NIGHT-HERON: An adult was seen at Winston-Salem on 27 April by David and Susan Disher, and one, perhaps the same bird, was noted there on 3 May by Ann Pollard.

GLOSSY IBIS: Individuals in inland North Carolina this spring were found at Butner on 17 April (Ricky Davis), at nearby Falls Lake on 23 April (Ricky Davis—three birds), and at Goldsboro on 25 April (Eric Dean).

WOOD STORK: Robin Carter and James Haw noted one at Bear Island in Colleton County, S.C., on 11 April.

CINNAMON TEAL: A male in full breeding plumage was present at Mackay Island National Wildlife Refuge, N.C., from 29 March to 11 April, fide Robert Ake. It was seen by John Fussell, Ricky Davis, Wayne Irvin, and Derb Carter. The bird was wary and presumably was a wild individual; there are perhaps five records for the state.

NORTHERN SHOVELER: A good mountain count was 10 birds seen by Douglas NcNair at Cashiers, N.C., on 12 April.

COMMON EIDER: Extremely late was a female seen at Cape Hatteras Point on 22 May by John Fussell, Sam Cooper, Alan Barron, and Rosemary Bauman.

HARLEQUIN DUCK: One of the few records for South Carolina was a male observed by Terence Schiefer at Huntington Beach State Park on 1 March. Two males were seen at groins at the Cape Hatteras, N.C., lighthouse on 4 March by Marcia Lyons.

OLDSQUAW: Very late for an inland site was a male in breeding plumage seen by Lex Glover and Evelyn Dabbs near Sumter, S.C., on 21 April. (See p. 29 in this issue)

COMMON GOLDENEYE: A female was seen for much of March at Raleigh, N.C., as reported by Jim Mulholland.

HOODED MERGANSER: A female with a brood of young was seen by James Haw at Huntington Beach State Park on 22 March for one of the few nesting records for the Carolinas.

RED-BREASTED MERGANSER: Five females were late at Huntington Beach State Park on 28 May (David Disher), whereas one female was at Goldsboro on 26 May (Eric Dean).

RUDDY DUCK: Eric Dean noted two females lingering at Goldsboro from May to 13 June.

BLACK VULTURE: Derb Carter, Ricky Davis, and Harry LeGrand saw two at the Brevard Fish Hatchery, N.C., on 8 May and two others at Cheoah Lake in Graham County, N.C., on 9 May.

AMERICAN SWALLOW-TAILED KITE: Individuals were seen near the North Carolina coast on 15 March at Pea Island (Mike Tove, Wayne Irvin), on 20 April near Long Beach (Greg Massey, Jeremy Nance), on 4 May about 5 miles southwest of Newport (JoAnne Powell et al.), on 18 May at Buxton (Sam Cooper et al.), on 21 May near Hubert (Larry and Patti Crawford), and on 22 May at Frisco (John Fussell).

NORTHERN HARRIER: A female was seen by Merrill Lynch, Karen Lynch, and Harry LeGrand on 30 May near Roper, N.C.

SHARP-SHINNED HAWK: John Fussell noted a modest migration along the coast at Currituck Banks, N.C., one mile south of the Virginia line. He saw five birds in 15 minutes on 7 May. Suggestive of nesting was a pair seen feeding at 5000 feet elevation along the Blue Ridge Parkway in Haywood County, N.C., on 10 May by Mike Tove and party.

ROUGH-LEGGED HAWK: Floyd Williams carefully studied a light-phase hawk hovering over a field near Merchants Millpond State Park, N.C., on 13 March. [Convincing details were provided. —HEL]

GOLDEN EAGLE: An immature was observed at Devil's Courthouse in northern Transylvania County, N.C., on 11 April by Ruth and Jerry Young. Another immature, possibly the same bird as the one above, was seen by Douglas McNair on 4 May at Black Balsam Knob in nearby Haywood County.

MERLIN: Inland sightings, rare in spring, in North Carolina were from Goldsboro on 23 March (Rich Yarbrough), the Merchants Millpond State Park area on 26 March (Floyd Williams), at Jordan Lake on 14 April (Ricky Davis), near Raleigh on 23 April (Jay Carter), near the Tuscarora Boy Scout Camp in southeastern Johnston County on 25 April (Celia and Eric Dean), in central Halifax County on 26 April (three migrating northward — Frank Enders), on the Durham spring count on 27 April (two birds — fide Mike Schultz), and in downtown Fayetteville on 6 May (Philip Crutchfield). In inland South Carolina, Robin Carter watched a Merlin catch a Barn Swallow near the bridge to Dreher Island State Park on 29 March.

YELLOW RAIL: A rare sighting was a bird flushed from a grassy swale at Huntington Beach State Park, S.C., on 29 March by Tom and Ann Hankins.

KING RAIL: Philip Crutchfield saw one at Becker's Sand and Gravel Company near Fayetteville, on 9 May, for a first local record.

VIRGINIA RAIL: A new breeding season locality was reported by Gilbert Grant, who noted a pair on territory in salt marsh at Topsail Island, Onslow County, N.C., on 23, 27, and 29 May.

COMMON MOORHEN: An adult was found dead in Winston-Salem, N.C., on 28 April, fide Hop Hopkins.

LESSER GOLDEN-PLOVER: There were three spring records, all from South Carolina: five at a farm pond near Landrum on 4 April (Simon Thompson), a remarkable flock of 30 at Savannah National Wildlife Refuge on 5 April (David Sibley), and one at Huntington Beach State Park on 5 May (Tom and Ann Hankins). All birds were in winter plumage.

WILSON'S PLOVER: Lex Glover saw two rather early birds on 16 March at Huntington Beach State Park.

BLACK-NECKED STILT: Up to 16 were present out of habitat at sandy pools at Cape Hatteras Point, N.C., from 13 May into early June (Sam Cooper et al.); no evidence of nesting was noted. Robin Carter and James Haw had a good total of 50+ birds, probably breeders, at Bear Island Wildlife Management Area, Colleton County, S.C., on 11 April.

AMERICAN AVOCET: Locally scarce were three at Huntington Beach State Park on 16 March (Lex Glover) and one at Eagle Island near Wilmington, N.C., from 16 to 20 April (Greg Massey, Jeremy Nance).

UPLAND SANDPIPER: An unusual mountain record was a migrant heard calling overhead at night on 19 April at Grandfather Mountain, N.C., by Douglas McNair.

HUDSONIAN GODWIT: Just the second spring record for North Carolina was one in partial breeding plumage seen by Harry LeGrand, David Wright, and Wayne Irvin at the Bodie Island, N.C., lighthouse pond on 25 May. The black underwing coverts were seen to rule out other godwit species.

SANDERLING: Eric Dean observed one at Goldsboro, N.C., on 27 May, the only inland spring report.

SEMIPALMATED SANDPIPER: A good inland spring total was 50+ at Goldsboro on 14 May (Eric Dean).

PECTORAL SANDPIPER: A notable total for the mountains was 45 tallied by Douglas McNair at Hendersonville, N.C. on 11 April.

DUNLIN: Single inland birds were found by Philip Crutchfield at Fayetteville on 14 May and by Eric Dean at Goldsboro on 21 and 22 May.

CURLEW SANDPIPER: Sam Cooper and others saw one in partial breeding plumage at Cape Hatteras Point on 13 and 14 May.

STILT SANDPIPER: Uncommon finds were three birds at Eagle Island near Wilmington on 25 April (Kitty Kosh) and two in northeastern Pamlico County, N.C., on the same date (Philip Crutchfield et al.).

RUFF: A very rare sighting was a female seen by Sam Cooper at a small pond at Cape Hatteras Point on 13 May.

AMERICAN WOODCOCK: One was seen at Wanchese, N.C., on 3 May by Merrill Lynch and others, and another was calling at the campground at Cape Hatteras Point on 16 May (Merrill and Karen Lynch).

RED PHALAROPE: In addition to several offshore reports, single birds were seen on the coast on 31 March at Carova Beach in Currituck County, N.C. (John Fussell) and at Cape Hatteras Point on 26 April (Derb Carter et al.).

RED-NECKED PHALAROPE: Two early birds, perhaps the earliest state record, were seen by Derb Carter, John Fussell, and Merrill Lynch at Cape Hatteras Point on 26 April; and Harry LeGrand observed several groups totalling 30 birds migrating past this point on 15 May.

POMARINE JAEGER: There were several reports, as expected, on North Carolina pelagic trips this spring, with the best count being 12 off Beaufort Inlet on 29 May (Derb Carter).

PARASITIC JAEGER: Derb Carter noted approximately 19 birds on his pelagic trip off Beaufort Inlet on 29 May, a very high total.

LONG-TAILED JAEGER: This rarity is a regular migrant off the coast during the last half of May. Derb Carter observed at least three off Beaufort Inlet on 29 May, and one was seen in this same general area on 24 May by Jeremy Nance. An exceptional record was a total of 12 seen flying past Cape Hatteras Point on 28 May by John Fussell; all but one of the jaegers was in full breeding plumage.

SOUTH POLAR SKUA: John Fussell saw two flying past Cape Hatteras Point on 28 May. On pelagic trips, four were seen (and at least one was photographed) off Beaufort Inlet on 29 May by Derb Carter, and Jeremy Nance saw another in this area on 24 May.

LAUGHING GULL: Inland birds were seen in North Carolina near Greensboro from 10 to 15 March and on 16 April (Herb Hendrickson), at Jordan Lake on 4 April (Anson Cooke), and at Falls Lake on 23 April (Ricky Davis). Four gulls were seen on 25 April by Merrill Lynch and Derb Carter near Garysburg, Northampton County, N.C.

FRANKLIN'S GULL: John Fussell observed an adult in breeding plumage along Currituck Banks, N.C., about 2 miles south of the Virginia line, on 13 April. This is the first spring record for the coast of that state and just the fifth overall record for North Carolina.

LITTLE GULL: A record count for North Carolina was the 16 birds found by John Fussell on 10 March at Cape Hatteras Point; 12 of the birds were adults, in winter plumage. Smaller numbers were seen (and photographed) there during the remainder of the month by many other observers, including Harry LeGrand, Mike Tove, and Derb Carter. Fussell also counted 10 birds along 10 miles of beach north of Corolla, N.C., on 5 April, with six present in the area on 8 April. Other records, all by Fussell, were four Littles at Pea Island on 31 March and one adult at the campground in nearby Salvo on 31 March.

COMMON BLACK-HEADED GULL: An adult in winter plumage was seen at Cape Hatteras Point on 10 March by John Fussell.

BONAPARTE'S GULL: A good count for the Raleigh area was 99 seen by Jim Mulholland at Lake Wheeler on 24 January.

RING-BILLED GULL: A high elevation record was one seen standing on the road to Clingmans Dome in Great Smoky Mountains National Park, N.C., on 11 May by Rick Knight.

ICELAND GULL: At Cape Hatteras Point, the species was noted from 10 to 31 March by John Fussell and other birders. On 12 March, Fussell saw one adult and two first-winter individuals at this site. Fussell also saw a first-winter gull on the beach just north of Corolla on 1 and 3 April.

LESSER BLACK-BACKED GULL: One was rather late at Cape Hatteras Point on 26 April (Derb Carter et al.). The peak count for the spring was 12, as noted by John Fussell at the above location on 10 March.

GLAUCOUS GULL: John Fussell observed a first-winter bird at Cape Hatteras Point on 11 March.

CASPIAN TERN: Individuals were seen at several inland sites in North Carolina: Lake Norman (Dick Brown), Goldsboro (Eric Dean), Greensboro (Herb Hendrickson, Peggy Ferebee), and Jordan Lake (Ricky Davis); the best counts were 20 at Jordan Lake on 21 April and nine at Greensboro on 16 April.

COMMON TERN: Three early terns were seen by John Fussell at Cape Hatteras Point on 31 March, whereas another was rather rare inland at a gravel pit near Lillington, N.C., on 25 April (Steve Everhart).

FORSTER'S TERN: In addition to several piedmont records, three birds were noted in the mountains at Lake Julian near Skyland, N.C., on 21 April by Ruth and Jerry Young. These observers saw one Forster's there on 25 April.

SOOTY TERN: The species was again present at Cape Hatteras Point; this spring, as many as two adults were seen, being first noted on 17 May by Derb Carter, Robert Ake, and others.

COMMON GROUND-DOVE: Unusually far inland were two seen by Tom Hankins in eastern Lexington County, S.C., in early February.

BLACK-BILLED CUCKOO: Quite rare in the North Carolina coastal plain were two near Scotland Neck on 3 May (John Fussell et al.), two in the Green Swamp about 6 miles south of Bolton on 13 May (Jeremy Nance, Mike Tove, Keith Archibald), one near Jamesville in Martin County on 30 May (Merrill Lynch, Harry LeGrand), and one in central Hertford County on 31 May (Lynch, LeGrand). All these birds are presumed to be transients in this region.

COMMON BARN-OWL: Dorothy Foy reported that two downy young were rescued from a grain bin near Oriental, N.C., on 17 May and were taken to her for rehabilitation.

NORTHERN SAW-WHET OWL: This species has been heard calling in spring in recent years at a site in Francis Marion National Forest, S.C. One bird was heard and briefly glimpsed at this site by Robin Carter, Steve Compton, and James Haw on 2 May, a very late date for the species outside the breeding range. One was seen and heard calling on territory on the night of 7 May on Pickens Nose (4800 feet elevation), southwest of Franklin, N.C., by Nora Murdock. [The location, considerably to the southwest of other breeding populations, and the hardwood forest habitat are most unusual; follow-up field work at this site is needed to determine if this is a regular nesting area. —HEL]

CHIMNEY SWIFT: Greg Massey saw two early swifts at Wilmington on 22 March.

OLIVE-SIDED FLYCATCHER: Migrants were seen at two North Carolina locales on 10 May — along the Heintooga Road at the southeastern edge of Great Smoky Mountains National Park (Derb Carter, Harry LeGrand, et al.) and near the Zebulon Country Club in Wake County (Eloise Potter, Paula Ruth Ford-Potter).

LEAST FLYCATCHER: Simon Thompson noted a male on territory, in pines, near Tryon, N.C., from 6 May to late June.

EASTERN PHOEBE: A pair was seen at Lanier Swamp in extreme southeastern Martin County, N.C., on 30 May by Merrill Lynch and Harry LeGrand. This site lies along the eastern edge of the breeding range.

HORNED LARK: Merrill Lynch noted pairs of larks in Martin County, N.C., near Oak City and at two sites near Hamilton on 25 May.

BANK SWALLOW: A good coastal count of 150, along with a Cliff Swallow, was reported by Jeremy Nance near Wilmington on 25 April.

FISH CROW: Herb Hendrickson and others had numerous records in the Greensboro area from 5 March to 3 May. The breeding range of the species in the piedmont is poorly known; these crows have not yet been reported to nest in Guilford County.

COMMON RAVEN: The first recent nesting record of ravens in South Carolina was made by Irvin Pitts, who found a nest in 1986 at Caesars Head State Park. In 1987, he noted birds at the same nest, and three young were in the nest on 9 May.

GOLDEN-CROWNED KINGLET: John Fussell saw two rather late at Corolla, N.C., on 29 April.

WATER PIPIT: One was at a very high elevation (6000 feet) at Little Black Balsam Knob, Haywood County, N.C., on 4 May (Douglas McNair).

PHILADELPHIA VIREO: Highly unusual near the coast in spring was one carefully studied by John Fussell on 1 May at Pea Island.

WARBLING VIREO: There were three reports from the coastal plain, where very rare: near Fayetteville on 5 May (Philip Crutchfield), eastern Lexington County, S.C., on 7 May (Tom Hankins), and in eastern Halifax County, N.C., on 9 May (Merrill Lynch, Randy Yelverton). The last bird, probably on territory, was likely the same individual at that site during the previous summer.

BLUE-WINGED WARBLER: Haven Wiley observed a very early warbler near Chapel Hill, N.C., on 12 April.

GOLDEN-WINGED WARBLER: In addition to several piedmont sightings this spring, one was seen near Southern Pines, N.C., on 9 May (Libba Watson).

BREWSTER'S WARBLER: One individual of this hybrid was seen by Irvin Pitts at Caesars Head State Park, S.C., on 29 April.

TENNESSEE WARBLER: One was far east at Raleigh on 28 April (Derb Carter). There were several sightings this spring in the Charlotte, N.C., area (fide Heathy Walker), as well as nine records this spring at Caesars Head State Park (Irvin Pitts).

NASHVILLE WARBLER: One was most unusual in spring on the coast at Buxton, N.C., where Derb Carter watched a singing male on 16 May.

CHESTNUT-SIDED WARBLER: Sam Cooper saw one singing at Pine Island Sanctuary on Currituck Banks, N.C., on 24 May.

BLACKBURNIAN WARBLER: A remarkable number was seen along the North Carolina coast this spring. On Currituck Banks, John Fussell noted two on 8 May, three on 20 May, and one on 27 May; and Sam Cooper observed one on 21 May. Cooper also saw three at Nags Head Woods Preserve on 31 May, Fussell saw one on Ocracoke Island on 30 May, and Alan Barron noted one at Buxton on 31 May. Also in the coastal plain was one seen near Vass, N.C., on 9 May by Tom Howard.

BAY-BREASTED WARBLER: Philip Crutchfield observed a singing male near Fayetteville on 9 May. Along the coast were single birds seen by John Fussell at Currituck Banks on 20 May and at Ocracoke Island on 30 May.

CERULEAN WARBLER: Presumably on territory were single singing males near Little Switzerland, N.C., from 20 to 22 May (Merrill Lynch, Lance Peacock) and near Craven Gap northeast of Asheville, N.C., on 22 May (Lynch, Peacock).

BLACK-AND-WHITE WARBLER: A good coastal plain count of breeding birds was five in eastern Martin and western Washington counties, N.C., on 30 May (Merrill Lynch, Harry LeGrand).

WORM-EATING WARBLER: Merrill Lynch noted a singing bird on territory in extreme eastern Edgecombe County, N.C., on 25 May. Irvin Pitts found two nests, each with five eggs, at Caesars Head State Park in May.

MOURNING WARBLER: Probably the first spring record for the North Carolina coast was a non-singing male seen about three miles south of the Virginia border in Currituck County on 20 May by John Fussell.

AMERICAN REDSTART: An excellent count of presumably breeding birds was 17 singing males in central Washington County, N.C., on 30 May (Merrill Lynch, Harry LeGrand).

SCARLET TANAGER: Merrill Lynch noted singing males, probably breeders, near the edge of the range in North Carolina: near Hamilton on 25 May, near Williamston on 25 May, along the Martin-Washington county line on 30 May, and in central Gates County on 31 May.

WESTERN TANAGER: Barbara Roth and Frances Covington saw a female or immature on 1 March at Huntington Beach State Park. A male was seen by Eric Dean in a rural setting near Goldsboro, N.C., on 10 March, whereas another was in a yard at Oriental, N.C., on 4 May (Dorothy Foy).

ROSE-BREASTED GROSBEAK: Sam Cooper noted late migrants on the coast at Currituck Banks on 1 June and at Nags Head on 3 June.

DICKCISSEL: Robin Carter and others saw a singing bird near Newberry, S.C., on 2 May, and John Fussell saw a non-singing male north of Corolla on 8 May.

BACHMAN'S SPARROW: Singing birds were heard at two sites near Parkersburg, Sampson County, N.C., on 30 April by Harry LeGrand and Merrill Lynch.

HENSLOW'S SPARROW: Greg Massey and Jeremy Nance found a new "nesting colony" in a clear-cut pocosin in Columbus County, about 10 miles south of Bolton, N.C. They noted eight singing birds on 16 May.

LECONTE'S SPARROW: Very unusual for the mountains was one seen at close range by James Coman at Piney Creek, Alleghany County, N.C., on 26 April.

SHARP-TAILED SPARROW: Irvin Pitts, Robert Ruiz, and Bill Duyck saw a migrant in Caesars Head, S.C., on 15 May, a rare mountain record.

LINCOLN'S SPARROW: The only spring reports were of single birds near Georgetown, S.C., on 11 April (Robin Carter, James Haw) and at Chapel Hill on 9 May (James Haw).

DARK-EYED JUNCO: A pair was seen nest-building at Caesars Head State Park on 29 March by Irvin Pitts. Three young later fledged.

NORTHERN (BULLOCK'S) ORIOLE: Very rare for South Carolina was a second-year male seen singing near Sumter on 26 April by Evelyn Dabbs and Jimmy Beatty. Jim Mulholland reported a female at his feeders in Raleigh on 15 February. [Observers should take great care in identifying females of this subspecies, as female "Baltimore" Orioles can be quite pale on the breast and belly. —HEL]

PINE SISKIN: The species was quite common during the spring over much of the Carolinas, and a late individual was at Saluda, N.C., as late as 30 May (Simon Thompson).

BOOK REVIEW

THE COLLINS FIELD GUIDE TO THE BIRDS OF SOUTH-EAST ASIA

Ben King, Martin Woodcock, and E.C. Dickinson, 1988 The Stephen Greene Press, Lexington, Mass. Illus. 480pp. Softcover, $19.95

For anyone planning a trip to Burma, Malaya, Thailand, Cambodia, Vietnam, Laos, Hainan and/or Hong Kong with a desire to identify the exotic birdlife of the region, the present text is undoubtedly the most valuable field guide available. King and Dickinson first published their guide in England in 1975 and it has now been released for publication in the U.S. Their text, together with the clear paintings of Martin Woodcock open up this huge avifauna to the American birder..

What I find most impressive is that the authors have covered so many species without sacrificing the concept of the field guide. Nearly twelve hundred species of birds are recognized as occupying this corner of the world, a number almost twice as great as those covered in the seccond edition of the recently reviewed National Georgaphic Guide to North American Birds. Yet the number of pages in the two guides is comparable and the size of the South-East Asia guide is significantly smaller. What you don't get, of course, is the illustration of all the sorts of intraspecific variablilty due to age, sex and geography. As much of this information on southeast Asian birds is not known to anywheres near the extent that it is for North American species, this cannot be considered a serious shortcoming of the field guide.

The artwork in this field guide is uncommonly good, on a par with the art in the Peterson Guides which served as its inspiration. Like the Peterson Guides, the plates make use of little lines pointing to the most distinctive field marks. This is a technique that has not outlived its utility. While all 1190 species have not been figured, approximatley three quarters have. Those that have been omitted from the plates will either be known to many North American birders (such as the Red-necked Grebe, and Wilson's Storm-Petrel), are similar enough to species that are in the plates so that the written descriptions are sufficient to make the distinctions (Brown-winged Kingfisher, Yellow-rumped Honeyguide), or are represented by small line drawings in the text (many of the water-birds and raptors).

Assuming that most potential buyers of this field guide will not have a great deal of experience with southeast Asian birds, you are encouraged to read the introduction and the how to identify birds section in the front of the text. The tips that are included here, will be useful in learning how to identify birds, not only in southeast Asia, but almost anywhere else in the world, including your back yard.

Even if your are not planning a trip to the Orient in the near future, I recommend having this book as a reference source to identify those escaped cage birds that do show up around the country now and again. Or if nothing else, it will provide the basis for some great birding dreams.(HTH)

Carolina Bird Club
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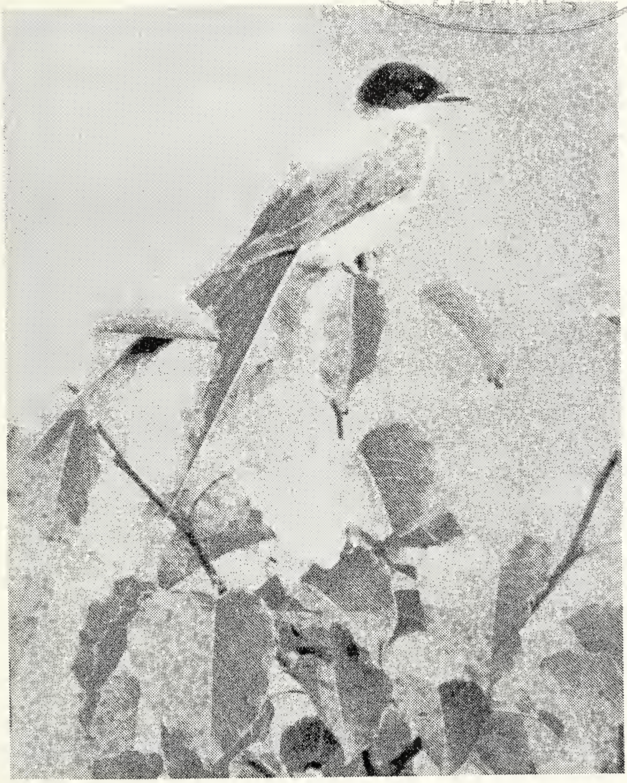

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THE CHAT

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OUR COVER—This handsome Fork-tailed Flycatcher was photographed by E. Wayne Irvin in June 1986 at Cape Carteret, N.C. to validate the report on page 54 of this issue. The photo is now NCSM #017 in the bird photographic archives of the North Carolina State Museum of Natural Sciences.

General Field Notes

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NOTICE

Publication of any unusual sightings of birds in the Field Notes or Briefs for the Files does not imply that these reports have been accepted into the official Checklist of Birds records for either North or South Carolina. Decisions regarding the offical Checklists are made by the respective State Records Committees and will be reported upon periodically in THE CHAT.

A Monk Parakeet Specimen From Greenville County, S.C.

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GREG CORNWELL
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On 6 September 1985 an unknown dove hunter shot and killed one bird from among a passing flock of unknown species in 'Upper' Greenville County. Recognizing the bird as a parrot, the hunter took it to the Roper Mountain Science Center, where Cornwell identified it as a Monk Parakeet (*Myiopsitta monachus*), and accepted it as a donation from the hunter. In the summer of 1986, the bird's frozen remains were transferred to the vertebrate collections at Clemson University, where they were prepared as a standard study skin (CUSC 2267).

The bird, a sexually mature female in very fresh and well-kept plumage, had very little subcutaneous fat, and weighted 102.1 g at the time that it was preserved. Its crop was full of crushed, light-colored, small-kernel grain or grass seeds.

The distributon of Monk Parakeets is described by Forshaw (Parrots of the World, 2nd ed., Lansdowne Press, Melbourne, 1973) as 'native to central Bolivia and southern Brazil south to central Argentina, recently introduced to, and apparently now established in, Puerto Rico and northeastern United States.' This specimen, along with several sightings and at least one other specimen (Chat 40:68-69, 1976), may be interpreted as physical evidence that Monk Parakeets are becoming established in South Carolina as well.

First Record of Fork-Tailed Flycatcher for North Carolina

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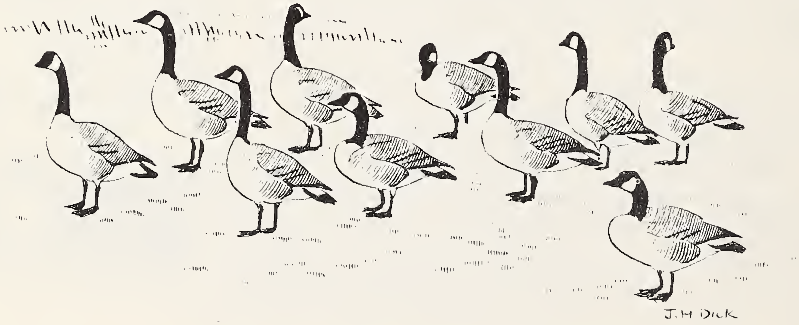
At 9:48 am on 1 June 1986 a Fork-tailed Flycatcher (*Tyrannus savana*) was seen by me on a single strand of barbed wire forming a low fence to one side of the driveway at my home on Bluff Road, Cedar Point, Carteret County, N.C. Although I did not have binoculars with me at the time, the bird was readily identifiable, having a black crown and cheeks, a gray back, very light-almost white-underparts, black wings and a strikingly long, forked black tail. The forked tail was particularly noticeable as it hawked insects. Later, numerous studies of it were made with binoculars and a spotting scope at distances as close as approximately 10 meters. The bird appeared to be in good adult plumage, although there was evidence of wear in the tail feathers, the left fork being noticeably shorter than the right. The body seemed to be smaller than that of Eastern Kingbirds (*Tyrannus tyrannus*) that were also present in the area. This may have been exaggerated by the extremely long tail of the Fork-tailed Flycatcher..

It was not particularly shy, allowing very close approach if one did so without sudden movements. It seemed to completely ignore vehicular traffic. Preferred perches were the low strand of barbed wire and low trees (up to about 2 meters) from which it sought its prey. Insects were frequently caught on the ground, particularly at the margins of the marl road, where the insects were easily seen against the light background. This bird stayed in the immediate vicinity for a week and was last seen at 8:00 pm on 7 June 1986. During its stay it was seen and photographed by numerous individuals. To date this is the only record of this species for the state..



Red Crossbill Nesting at Caesar's Head, S.C.

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On 28 June 1988 I saw six Red Crossbills (*Loxia curvirostra*) feeding on White Pine (*Pinus strobus*) seeds in the vicinity of the Caesar's Head State park headquarters in Greenville County, South Carolina. Crossbills remained in the area throughout July and August and were seen in other nearby locations also. A pair of Red Crossbills frequented the upper end of Jones Gap, near Caesar's Head, during August. A small flock was also present at the Caesar's Head Community, near Caesar's Head. In both locations, stands of either White Pine or Eastern Hemlock (*Tsuga canadensis*) were present. These sightings represent an invasion of Red Crossbills into the mountains of northern Greenville County, and possibly elsewhere.

On 14 July, I saw a female Red Crossbill breaking off twigs from a Virginia Pine (*Pinus virginiana*). I found the nest in an outer branch of a mature White Pine. The nest was about 21 m above ground. It was well-hidden in thick foliage, about 2.5 m from the main trunk. The nest tree was at the edge of a mixed pine-hardwood stand, and was 6 m from a brushy powerline clearing near the state park headquarters. The elevation at this point is about 376 m. The tree was about 15m from U.S. Highway 276 and 1 m from a dirt driveway. The dominant canopy trees included White Pine, Tulip Poplar (*Liriodendron tulipifera*), Black Locust (*Robinia pseudoacacia*), Black Tupelo (*Nyssa sylvatica*), Virginia Pine and Northern Red Oak (*Quercus rubra*). The understory was relatively open, and consisted of American Holly (*Ilex opaca*), Flowering Dogwood (*Cornus florida*), Carolina Silverbell (*Halesia carolina*), Red Maple (*Acer rubrum*), Black Locust and Black Tupelo. Ground cover had recently been cleared. The bordering powerline clearing grew thick with Blackberry (*Rubus sp.*), Jewel Weed (*Impatiens capensis*) and various saplings, including Tulip Poplar and Red Maple.

I saw nest construction by the female on eleven days. The male accompanied the female on numerous occasions, but was not observed to assist in nest-building. Pine branches, shredded bark, grasses and unidentified plant materials were used for the nest. The male frequently perched in the top branch of the nest tree while the female constructed the nest. On 7 August, I saw the male at the nest for the first time. The male and female were both at the nest on August 20, and were both apparently feeding young. On 26 August, I found a live nestling at the base of the nest tree. The nestling's body was well feathered and the wing feathers were developed. This bird died on 29 August, and is now in the Clemson University Vertebrate Collections (CUSC # 2330).

Between 26 August and 30 August, both adults visited the nest. Once, the male picked small arthropods from the needle bracts. However, the seeds from White Pine appeared to be the main food, and White Pines in this area produced an abundant seed crop this summer.

At the time of the crossbill nesting, a pair of American Goldfinches (*Carduelis tristis*) nested in the same tree, about 3 m away. On several occasions, the female goldfinch harassed the female crossbill while the crossbill was nestbuilding. Once, I saw the male crossbill chase the male goldfinch from the crossbill's main perch. However, these minor conflicts did not deter either species from nesting. The male crossbill frequently sang prior to and during nest construction, but singing soon declined aferwards.

Until now, the Red Crossbill was classified as a casual visitor during the breeding season in northwestern South Carolina (Post and Gauthreaux, Contrib. Charleston Mus. 18, 1988), and has bred near Boone, N.C. in 1981 (Haggerty, Chat 46:83-86, 1982). This breeding record at Caesar's Head State Park is the first for South Carolina.

I thank Sid Gauthreaux for his assistance and helpful advice with this manuscript.

First Sighting Of The Little Gull From South Carolina Waters

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On 14 March 1987 on pelegic trip aboard the Carolina Clipper I sighted an adult winter-plumage Little Gull (*Larus minutus*). The boat was headed to the Gulf Stream from Charleston and we were about 40 km offshore when I saw the bird. The weather was clear and the seas were calm. The Little Gull was flying with two Bonaparte's Gulls (*L. philadelphia*). The three birds were sighted off the starboard quarter and crossed astern about 100 m. The bird was easily identified as it had dark wing linings, rounded wing tips, and was obviously smaller than the Bonaparte's Gulls accompanying it. There is no possibility of confusing *Larus minutus* in adult plumage with any other bird. Robin Carter and Sidney Gauthreaux also saw the bird. I might add that I have seen several Little Gulls in Massachusetts and on the south shore of Lake Erie, so it is a bird with which I have had some experience.

S.C. Editor's Note: The Little Gull was added to the North Carolina hypothetical list with the publication of the sighting of an individual at Roanoke Rapids in 1971 (Chat 36:30, 1972). With the publication of this record, the species may now be placed on the South Carolina Provisional list (1-4 published sightings, but no material documentation).

Historic Nest Record of the Peregrine Falcon in Pickens County, S.C.

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The historic breeding range of the Peregrine Falcon (*Falco peregrinus*) extended south to the southern Appalachians, including South Carolina (Brewster, 1886; Loomis, 1890; Herbert et al., 1943; Sprunt and Chamberlain, 1949; Hickey, 1969). Only one proven breeding record exists in South Carolina, at Caesar's Head, Greenville County, where young were heard in the nest when they were being fed by the adults in April 1933 (Sprunt and Chamberlain, 1949). Presumptive breeding occurred at this site in earlier years and also at Table Rock, Pickens County, based on evidence of adults present at suitable ledges during the breeding season (op. cit.). However, no nest and eggs of Peregrine Falcon have been reported in South Carolina recently at either site, and any further information on historic breeding is valuable.

Four fresh eggs of the Peregrine Falcon were collected on 9 April 1884 'on a ledge of high rocks,' Pickens County, by an unknown individual for Samuel B. Ladd, a noted oologist from Pennsylvania. This set was in the collection of Charles E. Doe, another reputable oologist, by about 1906 (T. Webber, pers. comm.). The set is now in the collection of the Florida State Museum (Cat. No. UF 2452). Measurements of the four eggs (to the nearest 0.1 mm) are: 55.3 x 40.5, 52.9 x 39.7, 52.6 x 40.9, and 51.9 x 40.7. A color photograph of the set of four eggs, on Kodachrome 64, is on permanent file at the Charleston Museum.

Unfortunately, the exact collecting site for this egg set is not known, but the site is almost certainly Table Rock (950 m) because this is the only known suitable breeding locality in Pickens County. Loomis (1890) reported three birds present here in June 1889. The individual who collected the egg set is also unknown. However, both Ladd and Doe were reliable oologists, and the handwriting on the egg data slip which accompanies the egg set is Ladd's, which suggests he was confident the record was reliable.

In addition, Brewster (1886) found Peregrine Falcons nesting at every suitable ledge on rocky cliffs in nearby North Carolina in 1885, just one year later than the egg set collected in Pickens County, South Carolina. Other historical evidence also indicates Peregrine Falcons were widespread as breeding birds in the southern Appalachians at this time (op. cit.). Assuming an incubation period of 34 days and egglaying every other day (Harrison, 1975), back-dating indicates the first egg of the set from Pickens County would have been laid around 27 February, which roughly agrees with data from Georgia and the Carolinas (op. cit.).

Bechard (1981) also used historic nest records of Peregrine Falcons in egg collections to provide evidence that Peregrine Falcons nested in areas they no longer use for breeding. The only documented nests from southern Manitoba and the entire province of Saskatchewan, Canada, are based on oological records. Thus, the value of documentation is once again demonstrated.

Acknowledgments. I thank T. Webber, bird collections manager of the Florida State Museum, for providing me with color photographs of the egg set, measurements of the eggs, and other information. I thank Dr. M.B. Simpson for reviewing the manuscript.

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Common Raven Breeds at Table Rock Mountain in South Carolina

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A pair of Common Ravens (*Corvus corax*) nested at Table Rock Mountain, Pickens County, S.C. in 1986. I discovered a bulky nest placed deep in a crevice of a crag on the northeast face of the massive granitic dome of Table Rock Mountain (950 m) on 26 March. The nest crevice was located about 12 m below the northeast section of the dome and 22 m above the base. The nest crevice had a overhang above and a steep rock face below. The nest-site is located near the Saddle which connects the base of Table Rock to the Stool (799 m) and overlooks Table Rock Reservoir. The surrounding habitat is primarily Oak (*Quercus spp.*) forest on steep slopes with some Canadian Hemlocks (*Tsuga canadensis*) in narrow ravines and pines (*Pinus spp.*) on the xeric dome of Table Rock Mountain.

Twice, I saw one or two young appear above the nest rim briefly, appear to beg, and flap their wings. Their flight feathers and anterior contour plumage were fairly well developed. The adults, which had left the vicinity of the nest before my arrival, did not approach the nest closely while I was present, but the male did protest occasionally at a distance. The visible side of the nest rim was fouled with excrement. Several branches of a small bare deciduous sapling that projected 1 m beyond the rock face from beneath the nest was also fouled with excrement. Another ledge, unsuitable as a raven's nest-site (Hooper, 1977) was located 7 m above the nest crevice and was slightly fouled with excrement. This ledge (henceforth called the high ledge) was used by both adults and was the nocturnal roost site of the male which does not incubate the eggs or brood the young (Goodwin, 1976).

I could not see if the nestlings' eyes were open, but assuming a fledging period of 41 days (Stiehl, 1985), I guessed that the young were about 3 weeks old. Assuming ravens lay eggs once a day, begin incubation with the second egg laid, and have a mean incubation period of 21 days (Stiehl, 1985), I estimate that this pair of ravens must have begun egg-laying around 15 February. Most ravens in SW Virginia lay eggs by 8 March (Hooper, 1977), which roughly agrees with my observations. Temperatures were very mild in the mountains of South Carolina in February 1986 and snowfall was much less than normal; under these conditions, early egg-laying would be expected for Common Ravens.

On 3 February 1986, this pair of adults was on territory and roosting or resting on both ledges. I heard call-types, i.e., the Rattle and Bell-like vocalizations associated with several courtship and aerial displays (Conner, 1985), but saw no nest-building. I did see some sticks in the nest crevice but could not discern whether they formed a bonafide nest. Evidently, the pair of ravens built the bulky nest between 3 February and about 15 February which also agrees with Hooper (1977).

I have checked Table Rock Mountain annually in late winter and spring since 1983 and a pair of ravens have been present every year on the same territory. However, I was uncertain if nesting occurred because I could not clearly see inside the rock crevice. On 19-20 March 1983, a pair of ravens defended the high ledge, and the male occasionally pursued Turkey Vultures (*Cathartes aura*) when they approached the high ledge too closely. The adults engaged in courtship displays. I also watched both sexes, but primarily the male fly down the ravine between Table Rock Mountain and the Stool to the vicinity of the major recreation areas in Table Rock State Park, return with refuse, usually bread, and fly to an invisible site below the high ledge. The male was particularly active in this activity on 20 March when I saw the female only twice in four hours of intensive observations. My observations are consistent with both parents bringing food to the young, primarily the male, and with the female brooding the young (Goodwin, 1976). Later, I checked the probable nest crevice below the high ledge, saw some excrement streaks on the rock face below, but could not clearly discern any substantial nest structure.

Next year, I did not see a pair of Ravens on 15 February 1984, but a pair was on territory on 5 April and my observations were similar to those before. I flushed the female from the probable nest crevice at 1700 hr and the bird did not return while I was present. Some sticks were visible in the nest crevice but no structured nest was visible. Some excrement was present on the rock face below the nest and on the bare deciduous sapling.

The following year, I saw a pair of ravens on territory on 18 March 1985 but did not see them defend a ledge. Otherwise, my observations are similar to those of the previous two years.

In retrospect, I believe a pair of ravens has nested at Table Rock Mountain since at least 1983 but a substantial nest structure was not clearly visible in the crevice until 1986. That year, the nest was bulky, probably because the ravens built upon the foundation of previous nests; thence, part of the bulky nest was visible which permitted me to see young in the nest if they appeared above the nest rim.

Common Ravens certainly bred in the Blue Ridge Physiographic Region of South Carolina in Oconee, Pickens, and Greenville counties during the nineteenth century but no definite records exist. Loomis (1889, 1890, 1891) stated ravens nested at Table Rock Mountain, Caesar's Head, and possibly Mount Pinnacle (Pickens County). Apparently, the habitat at the high elevations of these mountains was forested much like today, though sheep were common in pastures on the lower slopes and narrow valleys. Though adequate evidence is lacking, the raven was possibly persecuted and their nests destroyed because residents believed ravens preyed upon live new-born lambs and not just placentae of the afterbirth.

Only two definite records of ravens exist for the mountain region since the nineteenth century until the 1940s. M. B. Stevens reported one in Oconee County on March 1935 and J. M. Sitton also reported two or three here, in the Walhalla area, in 1936 (Sprunt and Chamberlain, 1970). While ravens may have been extirpated in several other regions of the Southern Appalachians during this period, such as in eastern Kentucky (Fowler et al., 1985), I don't believe ravens were extirpated from the mountain region of South Carolina despite the near absence of records for a 40- to 60-year period because the habitat did not change much. Ravens were widespread in neighboring Georgia and North Carolina during this period (Burleigh, 1958; Pearson et al.,1959). In addition, observer coverage of the mountain region in South Carolina was virtually nonexistent during the 20th century until 1973. Nearby, insufficient observer coverage was also true in Tennessee where only one nesting locality of Common Raven was known through 1977 (Williams, 1980).

Simpson (1970) reported ravens at a dump near possible breeding habitat in Oconee County, South Carolina in 1969, though apparently at least two ravens were present each year near the Walhalla Fish Hatchery since about 1940. No one visited suitable potential nest-sites in the mountains until my visits began in 1983 but several previous records are suggestive of possible earlier breeding. On 11 June 1977, H. LeGrand and P. Hamel had 4 ravens at Table Rock State Park at an approximate elevation of 400 m (*Chat* 42:18). The following year at the same locality, both observers had 7 ravens on 10 June (*Chat* 43:23; *Am. Birds* 32:1161). Both these groups may have been of families but details are unknown.

Several Peregrine Falcons (*Falco peregrinus*) were hacked from Table Rock Mountain in 1985 in an attempt to reintroduce breeding pairs in South Carolina. Peregrine Falcons occasionally evict ravens from nest-sites but eviction of Peregrines from nest-sites by ravens is unknown (Ratcliffe, 1980). Ravens do have more specific nest-site requirements, i.e., a suitable ledge with an overhang above and steep rock face below, than Peregrines which do not require an overhang above. Ravens frequently use alternate nest-sites at the same locality (Hooper, 1977). The granitic dome of Table Rock Mountain is generally smooth with few suitable sites for either species despite its extensive vertical rock surface. One pair of ravens at Table Rock Mountain appears to have used only one nest-site for at least four consecutive years. This also suggests nest-sites are limited based on raven inspections of Table Rock Mountain. Ravens may nest in trees in the southern Appalachians, however. Hooper (1977), for example, found three nest-sites in pine trees. If ravens establish a breeding population in South Carolina of more than several pairs, such additional pairs will probably breed in trees. Finding such sites in the heavily forested mountain region of South Carolina will be difficult.

Ravens will probably continue to breed at Table Rock Mountain as long as a pair is present because the nest-site is not readily accessible and breeding activity begins in mid-winter when disturbance by people is minimal. Furthermore, the nest-site cannot be observed from the top of Table Rock Mountain nor can thrown objects from above hit the nest or its vicinity. Adult ravens, particularly the male, will fly near the dome when people are present and evidently tolerate the disturbance.

Records in Briefs for the Files of *The Chat* and in Southern Atlantic Coast Region of *American Birds* are not referenced below.

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CBC Rare Bird Alert
(704) 332-BIRD

BRIEFS FOR THE FILES

HARRY E. LeGRAND, JR.

(all dates 1987 unless otherwise indicated)

PIED-BILLED GREBE: A rare inland nesting record was a half-grown young seen by Philip Crutchfield near Fayetteville, N.C., on 6 August.

BLACK-CAPPED PETREL: An excellent count was 116 noted by Bob Odear and others off of Oregon Inlet, N.C., on 25 July.

LEACH'S STORM-PETREL: Bob Odear and party saw four birds on two pelagic trips (25 and 26 July) off Oregon Inlet. One of the few birds ever seen from shore in the Carolinas was near Cape Hatteras point, N.C., on 11 June (Sam Cooper, Alan Barron).

MASKED BOOBY: A sub-adult was seen off Oregon Inlet on 25 July by Paul DuMont, Robert Ake, and others. Several photos of this bird by Bob O'Brien have been given to the N.C. State Museum.

NORTHERN GANNET: John Fussell saw a late individual on 11 June at Cape Hatteras point.

AMERICAN WHITE PELICAN: One spent most of the summer at a Brown Pelican nesting colony on Beacon Island in Ocracoke Inlet, N.C. (Sam Cooper, Alan Barron, John Weske, and others).

GREAT CORMORANT: Apparently a first for North Carolina in summer was an immature seen in New River Inlet in Onslow County on 17 June and 29 July by Gilbert Grant. Rather late in departing were one at Charleston, S.C., on 22 March (David Sibley), four at Southport, N.C., on 20 April (Jeremy Nance, Greg Massey), and one at Wrightsville Beach, N.C., on 25 April (Massey, Maurice Barnhill).

ANHINGA: Frank Enders reported that Johnny Elder saw at least two birds in June at a pond in central Halifax County, N.C., at the same pond where at least 25 were present earlier in the year.

MAGNIFICENT FRIGATEBIRD: Very rare and early was one seen over Cape Hatteras point on 17 May by Robert Ake, Derb Carter, and others. One was noted on 21 June at Sullivans Island, S.C. (Tom and Jo Hutcheson), and another was seen on 21 June near Swansboro, N.C., on 21 June (Ron Johnson) and on the following day at nearby Beaufort (T.L. Quay).

HERONRY: An apparently new heronry was found at Ocracoke Village, N.C., by Sam Cooper. On 4 June, he counted the following adults: 90 Great Egrets, 80 Glossy Ibises, 50 White

Ibises, 40 Snowy Egrets, 30 Tricolored Herons, 14 Little Blue Herons, 10 Cattle Egrets, six Yellow-crowned Night-Herons, two Black-crowned Night-Herons, and one Green-backed Heron.

LEAST BITTERN: The species was again noted in 'Bo Thomas Swamp' at Hendersonville, N.C., where Douglas McNair saw one on 15 July.

GREAT BLUE (WHITE PHASE) HERON: Seldom reported from North Carolina was a 'Great White Heron' observed by Herb Hendrickson and Peggy Ferebee at Lake Townsend near Greensboro from 8 to 30 July.

GREAT EGRET: As many as eleven provided a notable mountain count at Hendersonville on 28 July (Douglas McNair).

YELLOW-CROWNED NIGHT-HERON: An immature was of interest in a backyard in southeastern Greenville County, S.C., as seen by K. Clark on 2 August (fide Peter Worthington).

WHITE IBIS: At Boykin's Mill Pond near Boykin, S.C., Will Post and Mark Dodd tallied an excellent 968 pairs on 4 June. Anhingas and Purple Gallinules were also present.

GLOSSY IBIS: Eric Dean saw two well inland at Goldsboro, N.C., on 21 and 22 May, and Ric Carter noted 60 post-breeders at South Creek in Beaufort County, N.C., on 27 July.

WOOD STORK: Will Post and Tom Murphy reported that the two known colonies in South Carolina (near Yemassee and along the Edisto River) fared well in 1987, with 125 nests and 55 pairs respectively. Well north of the usual post-breeding range were single birds at Lake Hartwell near Clemson, S.C., from mid-July to early August (G. Hammond, fide Peter Worthington), and at Bodie Island, N.C., from 31 July to 7 August (John Wright et al.).

FULVOUS WHISTLING-DUCK: Four were seen by Philip Crutchfield and party at Goose Creek impoundments in northeastern Pamlico County, N.C., on 25 April. Quite unusual in early summer was another seen from 1 to 5 June at Huntington Beach State Park, S.C., by Dick Schottler and Taylor Piephoff.

RING-NECKED DUCK: Two were very late near Sumter, S.C., on 8 June (Evelyn Dabbs), as was one at Cashiers, N.C., from 5 to 7 June (Douglas McNair). Rather late in departing were two in Lexington County, S.C., on 12 May (Tom Hankins) and one at Goldsboro on 25 May (Eric Dean).

RED-BREASTED MERGANSER: Several were present in June at Cape Hatteras point, fide Sam Cooper, and Bob Odear saw four females there on 21 June.

OSPREY: At inland sites in North Carolina, at least two nests were reported at Lake Norman (fide Dick Brown), approximately five nests at Jordan Lake (fide Barbara Roth), one nest at Falls Lake (Margaret Wagner et al.), and one nest at Lake Townsend (Herb Hendrickson).

MISSISSIPPI KITE: An adult was seen again at Mush Island near Weldon, N.C., this year on 5 June by Randy Yelverton. A subadult was noted by Philip Crutchfield and Jim Sipiora at a swamp near the South River in eastern Cumberland County, N.C., on 1 June. Another kite was seen at Orton Pond in Brunswick County, N.C., on 25 April (Kitty Kosh, Jeremy Nance); and Marcia Lyons saw one in mid-June at Buxton Woods, N.C. There is still no convincing evidence that this species nests in the state. On the other hand, a nest was present in a tall pine in the front yard of Mr. and Mrs. Porter Stevens in Mount Pleasant, S.C., and seen also by William Hutcheson and others during the summer.

BALD EAGLE: An immature was noted at several places from Nags Head to Pea Island during the last half of May by Harry LeGrand and others. An immature was seen in the Buxton area of the Outer Banks in June and July, fide Sam Cooper, and John Fussell saw one on 26 July along the Dare-Currituck county line, N.C. It is not clear how many birds were involved in all these sightings, but eagles are very rare on the Outer Banks.

NORTHERN HARRIER: Out of season was a female near Society Hill, S.C., on 3 July (Heathy Walker, Harriet Whitsett). Very significant was the finding of a very young juvenile on 10 June approximately 5 miles northeast of Ocracoke, N.C., by Sam Cooper and Alan Barron. Cooper also noted an apparent breeding pair during the summer at Pea Island. An adult male on 23 June a mile southwest of Stacy, N.C. (John Fussell) was of uncertain nesting status.

GOLDEN EAGLE: Philip Crutchfield and party saw a subadult eagle over Mount Jefferson in Ashe County, N.C., on 10 June.

AMERICAN KESTREL: Near the eastern edge of the breeding range was an active nest with four chicks in an enlarged Red-cockaded Woodpecker cavity, ten feet above an active woodpecker nest, at Fort Bragg, Hoke County, N.C. Jay Carter found the nest on 15 May. Elsewhere in the coastal plain, a late migrant was seen on 5 June at Hatteras Inlet by Sam Cooper and Alan Barron, and one of unknown breeding status was seen on 14 June between Kinston and LaGrange, N.C., by Harry LeGrand.

AMERICAN COOT: Only the second or third nesting record for North Carolina was a pair that had two broods of five chicks each at the waste treatment plant in Goldsboro, N.C. Eric Dean saw the first clutch on 12 June and the second on 2 August.

BLACK RAIL: Sam Cooper has noted calling rails at the southwestern end of Ocracoke Island almost every year since 1982, with at least three heard in 1983. Alan Barron reported one there on 18 June. The brackish marshes on Roanoke Island, N.C., host good numbers of this rail, as John Fussell heard four calling near Wanchese on 7 June.

VIRGINIA RAIL: The breeding distribution of this species is not well known in North Carolina. Of interest were three heard calling near Wanchese on 7 June by John Fussell.

COMMON MOORHEN: Eric Dean observed five pairs with broods during the summer at Goldsboro, a rather far inland nesting locale for North Carolina.

LESSER GOLDEN-PLOVER: A very late migrant was one seen in breeding plumage on 15 June at Cape Hatteras point by Alan Barron.

PIPING PLOVER: The species has been found nesting in 1986 and 1987 along the beach at and near Currituck National Wildlife Refuge north of Corolla, N.C. (fide John Taylor and John Fussell). Fussell noted five pairs, several with young, in early July 1987.

AMERICAN AVOCET: Very rare inland were two seen by Ricky Davis at Jordan Lake on 31 July, whereas one on the beach north of Corolla on 26 July was unusual for that section of coast (John Fussell).

GREATER YELLOWLEGS: Robin Carter, Caroline Eastman, and Dennis Forsythe saw one in northern Lee County, S.C., on the unusual date of 27 June.

UPLAND SANDPIPER: One was notable inland in central Halifax County, N.C., where Frank Enders saw and heard one in flight on 31 July.

LONG-BILLED CURLEW: An excellent count of four birds were at Portsmouth Island, N.C., on 18 July (Derb Carter et al.), and one was at Cape Romain National Wildlife Refuge, S.C., on 15 July (Will Post).

WHIMBREL: Very rare for the mountain region was one flushed from a grass bald (Round Bald) on Roan Mountain, N.C., on 31 July by Alan Weakley.

SANDERLING: Eric Dean observed one at Goldsboro, N.C., on 29 July.

BAIRD'S SANDPIPER: A juvenile was noted at Cape Hatteras point, N.C., on the somewhat early date of 21 July (Sam Cooper, Alan Barron).

CURLEW SANDPIPER: At Portsmouth Island, the most consistent locale for the species in the Carolinas, one was seen on 18 July by Derb Carter and party and three were there on 28 July (Sam Cooper et al.). Another was seen on 24 July at Pea Island by Bob O'Brien. All birds were in breeding plumage. Two birds, in unspecified plumage, were seen by Jim Boone at Bodie Island on 5 June.

COMMON SNIPE: Rarely reported in June was one on the 4th several miles south of the Virginia line on the Currituck Banks, N.C. (John Fussell).

AMERICAN WOODCOCK: The breeding status of the species near the coast is poorly known; thus, of interest were one seen at Hatteras village, N.C., on 26 June (John Fussell) and another seen at Buxton, N.C., on 13 July (Merrill Lynch). Near this latter town, Sam Cooper and Alan Barron heard the species calling on several evenings in early June near Cape Hatteras lighthouse.

WILSON'S PHALAROPE: Somewhat early were individuals seen at Davis, N.C., on 12 July by John Fussell and Jeremy Nance and at Cape Hatteras on 13 July by Sam Cooper and Alan Barron.

RED-NECKED PHALAROPE: Sam Cooper observed a male at a pond at Cape Hatteras point on 5 June. Bob Odear and party reported approximately 10 birds off Oregon Inlet on 22 June.

RED PHALAROPE: Most unusual was the presence of remains of an individual found at a Peregrine Falcon eyrie in Linville Gorge, N.C., during late spring (fide Alan Boynton). Roxie Laybourne, at the U.S. National Museum, confirmed the feathers as this species.

PARASITIC JAEGER: One was seen resting on a jetty at Huntington Beach State Park, S.C., on 3 June by Dick Schottler.

BONAPARTE'S GULL: One, in a bizarre plumage, was a late visitor at Goldsboro from 27 May to 12 June, as noted by Eric Dean.

GREAT BLACK-BACKED GULL: Rarely seen in summer in South Carolina were eight at Folly Beach on 26 July (Perry Nugent et al.).

ROSEATE TERN: Approximately five adult birds, though no more than two on a single day, were seen from 27 June to late July at Cape Hatteras point by Sam Cooper, Alan Barron, John Fussell, and others. No evidence of nesting was found. Fussell saw another adult in flight just north of Corolla, N.C., on 24 July.

CASPIAN TERN: Frank Enders saw four at Roanoke Rapids Lake on 5 July.

FORSTER'S TERN: Four birds were observed by Herb Hendrickson on 15 July at Greensboro, N.C.

SOOTY TERN: Not nesting was an adult all summer at the tern colony at Cape Hatteras point (Sam Cooper et al.), and two were present but apparently not nesting at an island in Ocracoke Inlet, N.C., on 25 June (James Parnell). Another adult was seen on 26 July by Perry Nugent at Folly Beach.

COMMON GROUND-DOVE: Robin Carter saw two far inland about 10 miles east of Camden, S.C., on 29 June.

BLACK-BILLED CUCKOO: Late migrants were seen along the North Carolina coast -- three on 7 June on the Currituck Banks (Sam Cooper), one at Bodie Island on the same date (John Fussell), and one at Buxton on 11 June (Cooper).

OLIVE-SIDED FLYCATCHER: Very rare in summer was one seen singing on 23 July in Joyce Kilmer Memorial Forest, N.C., by Dave Lee.

WILLOW FLYCATCHER: Douglas McNair noted eight singing birds at a single location near Cranberry, Avery County, N.C., on 14 June; and he had 12 singing birds at seven sites in the Newland, N.C., area on the same date.

SCISSOR-TAILED FLYCATCHER: Always of interest was one seen along US 70 between Kinston and La Grange, N.C., on 13 June by Julie Moore and Steve Leonard.

HORNED LARK: In Lenoir County, N.C., southeast of the previously known breeding range, were two singing birds on 14 June at Stallings Field airport (Harry LeGrand) and a pair plus two immatures near Moss Hill on 15 June (Rich Boyd).

PURPLE MARTIN: Douglas McNair saw a male at Highlands, N.C., on 6 June at the high elevation of 4000 feet; the observer considered the bird to be a non-breeder. Approximately 7000 post-breeders were near Fayetteville on 24 July (Philip Crutchfield, Jim Sipiora).

CLIFF SWALLOW: The species is now likely nesting at most large piedmont lakes in the Carolinas, and Frank Enders counted six nests under a bridge at the Deep Creek arm of Roanoke Rapids Lake in June.

FISH CROW: Herb Hendrickson again noted the species in the Greensboro area, at the inland edge of the range. The species was found at Lake Jeanette in June and near Horsepen Creek in July.

CAROLINA WREN: At a very high elevation, and likely a post-breeding visitor, was a non-singing wren at Richland Balsam, Haywood County, N.C., on 29 July (Douglas McNair).

HOUSE WREN: Robin Carter surveyed a handful of piedmont South Carolina towns on 10 June for singing wrens. He noted one in Union and two in Chester, but none in Newberry, Clinton, Whitmire, Great Falls, or Kershaw. The puzzling appearance of the species in eastern North Carolina in summer continued, as Tom Haggerty noted two singing in southern Croatan National Forest, Carteret County, on 16 July.

GOLDEN-CROWNED KINGLET: For at least the second consecutive summer, this species was found at the Walhalla Fish Hatchery in northern Oconee County, S.C. Robin Carter saw four there on 18 July.

CEDAR WAXWING: Floyd Williams reported that the species was regularly seen in June and July at Merchants Millpond State Park, N.C.; however, he saw no immatures. John Fussell observed one on 22 July on Currituck Banks about 2 miles south of the Virginia line.

SOLITARY VIREO: Presumably a record one-day count for North Carolina was a total of 75+ singing in the Highlands area on 27 March (Douglas McNair). Rare in summer in piedmont South Carolina was a bird seen singing in pines near the Broad River Scenic Area in Sumter National Forest, Newberry County, on 10 June (Robin Carter).

WARBLING VIREO: Two singing birds were found at Camp Rockmont in Swannanoa, N.C., on 23 June by Douglas McNair.

YELLOW WARBLER: This species nests sparingly near the northern coast of North Carolina, but otherwise is limited in the summer to the mountains and piedmont. Coastal records noted by Sam Cooper were a pair most of June at Buxton and single birds singing in mid-June at Salvo and Bodie Island, and John Fussell saw one on 4 June (but not on later dates) north of Corolla.

BLACKBURNIAN WARBLER: Very late migrants near the North Carolina coast were a singing male on 5 June at Wilmington (Pat and Maudel Hunt), one at Pea Island on 7 June (John Fussell), and two singing males at Nags Head on 3 June (Sam Cooper).

BLACKPOLL WARBLER: Somewhat late was one on 4 June on Currituck Banks about 2 miles south of the Virginia border, as seen by John Fussell.

CERULEAN WARBLER: One noted singing on territory at Caesars Head State Park, S.C., from 29 May to 3 June by Irvin Pitts may have been the first suggestion of breeding in that state. At Tryon, N.C., just over the South Carolina line, Simon Thompson had a singing male on territory for the second consecutive summer. A good summer count was 11 noted by Randy Yelverton and Frank Enders along the Roanoke River, N.C., from Weldon to Halifax on 11 June.

SWAINSON'S WARBLER: Haven Wiley, Steve Hall, and other Chapel Hill, N.C., birders have noted as many as four singing males near Morgan Creek southeast of that town during the past several summers, including 1987.

BLACK-AND-WHITE WARBLER: Two birds were found by Philip Crutchfield and Jim Sipiora along the South River (at Roseboro Road) in eastern Cumberland County, N.C., on 1 June.

WORM-EATING WARBLER: Philip Crutchfield and Jewel Van Harlingan noted one singing along Harrison's Creek in southern Cumberland County on 6 June. A singing American Redstart was also at that site.

SCARLET TANAGER: Robin Carter saw two singing males along Flat Creek in eastern Lancaster County, S.C., on 23 June.

LARK SPARROW: Perhaps the first possibly breeding individuals of the species in South Carolina were two seen in a large yard and adjacent pasture near Lucknow in Lee County. Robin Carter found the birds on 25 June, and one was noted there on 3 July by Matt Johnstone; however, no strong evidence of nesting was detected.

GRASSHOPPER SPARROW: Presumably on territory in North Carolina, and near the edge of the nesting range, were one singing near Fayetteville on 11 May (Philip Crutchfield), one singing near Oak City on 25 May (Merrill Lynch), and three singing at Stallings Field near Kinston on 14 June (Harry LeGrand).

HENSLOW'S SPARROW: John Wright monitored the presumably nesting sites at Voice of America facilities in southeastern Pitt County and northwestern Beaufort County, N.C. He reported 'dozens' of birds at each site this summer, plus a few other birds nearby.

BOAT-TAILED GRACKLE: The first nesting for the Carolinas away from the tidewater zone was reported by Will Post, who found eight females and nests, plus three males, in a giant cutgrass marsh on Lake Moultrie, S.C., in June.

NORTHERN ORIOLE: A very rare breeding record for South Carolina was the discovery of a nest near Boykin, in the central part of the state, in early summer by Bruce Jackson. Will Post saw the nest in June.

HOUSE FINCH: Douglas McNair observed at least 15 in each of three towns -- Banner Elk, Newland, and Boone -- in the northern mountains of North Carolina in mid-June. At the other extreme of the state, Larry Crawford noted a pair copulating in Beaufort in June. [Based on these and previous records, it now seems that House Finches are nesting in most North Carolina counties, perhaps with the exception of a few coastal counties. However, the species is still relatively unknown in summer in most coastal plain counties in South Carolina. --HEL]

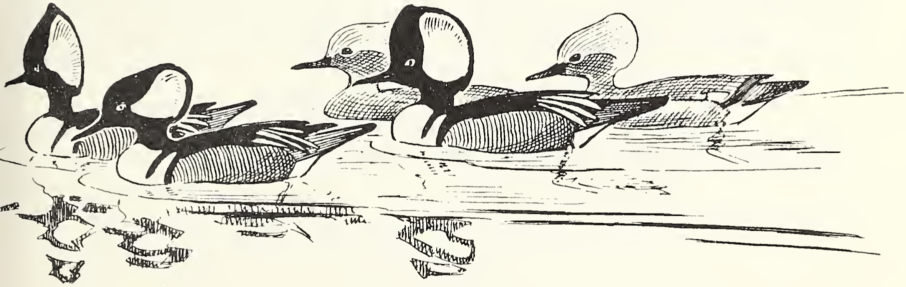
RED CROSSBILL: Douglas McNair found this erratic species to be widespread in June in many high elevation areas of North Carolina from Highlands and the Great Balsam Mountains north to Grandfather Mountain. His highest count was 45 on 10 June along the Blue Ridge Parkway at the Black Mountains.

BOOK REVIEW

THE MARSH HEN: A NATURAL HISTORY OF THE CLAPPER RAIL OF THE ATLANTIC COAST SALT MARSH

Brooke Meanley. 1985. Tidewater Publishers, Centerville, Maryland 21617. Illus. Drawings by John W. Taylor. Appendices. Bibliography. Index. 124 p. Paperback, $8.95.

Meanley provides a readable, scientifically documented account of the natural history of the Clapper Rail, two races of which breed in the Carolinas. *Rallus longirostris crepitans* nests from New England southward throughout the portion of the North Carolina coast dominated by wide sounds; *R. l. waynei* nests from Brunswick County, N. C., southward along the sea islands and their associated salt marshes to the northeastern coast of Florida. The author discusses all aspects of the Clapper Rail's life cycle and summarizes the results of both published and unpublished research, including that of David Adams and Thomas L. Quay in North Carolina and of Warren W. Blandin in South Carolina. Meanley, who wrote an earlier work on the King Rail (Natural History of the King Rail, North American Fauna No. 67, U.S. Department of the Interior, 1969), makes many useful comparisons between King and Clapper Rails. Although he documents successful interbreeding by the two species and mentions that some ornithologists consider the King to be a subspecies of the Clapper, he stops short of endorsing that taxonomic change. Meanley's comments on the great similarities between the calls of King and Clapper Rails will give pause to anyone who believes he can reliably separate them by ear. *The Marsh Hen* offers even the casual bird watcher an opportunity to know the Clapper Rail and its habitat intimately, and it provides some good tips on rail watching for serious bird students. -Eloise F. Potter



20th INTERNATIONAL ORNITHOLOGICAL CONGRESS 1990

Second Notice

The 20th International Ornithological Congress will take place in Christchurch , New Zealand, on 2-9 December 1990. The Congress programme will include 6 plenary lectures, 48 symposia, contributed papers (spoken and poster), workshops, discussion groups and films. There will be a mid-Congress excursion day. Longer excursions are planned to interesting ornithological sites in New Zealand before and after the Congress. In late 1990 New Zealand will also host the 20th World Conference of the International Council for Bird Preservation in Hamilton on 21-27 November 1990 and a Pacific Festival of Nature Films in Dunedin on 27 November - 1 December 1990. Photographic and stamp exhibitions will be held in Christchurch in association with the International Ornithological Congress. Requests for the First Circular, which includes information on the above events, should be sent to:

Dr Ben D. Bell, Secretary-General,
20th International Ornithological Congress,
Department of Zoology, Victoria University of Wellington,
Private Bag, Wellington, New Zealand
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Carolina Bird Club
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The Chat

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THE CHAT

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CBC

OUR COVER—This photograph of a Killdeer's nest taken by Jack Dermid is published though the courtesy of the North Carolina Wildlife Resources Commission.

General Field Notes

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NOTICE

Publication of any unusual sightings of birds in the Field Notes or Briefs for the Files does not imply that these reports have been accepted into the official Checklist of Birds for either North or South Carolina. Decisions regarding the official Checklists are made by the respective State Records Committees and will be reported upon periodically in THE CHAT.

Reuse of Nests and Nest Materials by Several Species of Passerines

ELOISE F. POTTER
North Carolina State Museum of Natural Sciences
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In May 1985, Brown Thrashers (*Toxostoma rufum*) nested successfully in an evergreen vine (*Euonymous* sp.) growing on a chain-link fence between my wooded yard and the adjacent fairway of the Zebulon Country Club, 4.5 miles N of Zebulon, Wake County, N. C. In July 1987, Carolina Wrens (*Thryothorus ludovicianus*) used the 2-year-old thrasher nest as a platform for a typically domed nest. That nesting was also successful. On 14 May 1988 I discovered a new thrasher nest built atop the old wren nest. Four eggs were being incubated on 28 May. The nest was empty, but otherwise undisturbed, on 5 June. The site was not used again in 1988.

Over the years I have noticed that thrashers tend to build repeatedly in the same vine, shrub, or sapling, either for successive nests in a single season or for single nests in successive seasons. However, I am not aware of another report of exactly the same site used in three out of four years by passerines of two species. The popularity of the euonymous vine is difficult to understand. It overgrows the endpost of the fence, and a white plastic jug hangs from the post. Throughout the day golfers visit the jug to pick up the lost balls I deposit in it. The distance from the jug to the center of the most recent nest is only 12 inches; the nest and the jug are approximately the same distance from the top of the fence.

In May 1965, Gray Catbirds (*Dumetella carolinensis*) nested in my neighbor's yard at Zebulon, Wake County, N.C. On 21 May four eggs were in a nest built in a shrub growing in a wire fence; the next day the nest was empty and in disarray. Nonetheless, the pair still exhibited territorial behavior on the 23rd; on the 25th I saw them carrying nesting material in the vicinity of the old nest. Further observation revealed that the catbirds were removing twigs from the old nest for use in construction of a new one in a crotch of a nearby crabapple tree.

Reuse of nests built by their own or other species and reuse of nest materials are well documented for many birds. Reports of nest reuse are most common in cavity nesters; in open-cup nesters that build large, sturdy, stick nests (e.g. raptors, herons); and in species such as the Eastern Phoebe (*Sayornis phoebe*; Abbott, 1922; Weeks, 1977) and the Barn Swallow (*Hirundo rustica*; Weeks, 1977; Barclay, 1988) that build substantial nests in sheltered locations.

Accounts of nest reuse are, as would be expected, relatively uncommon for the passerines that build small, complex, open-cup nests in sites exposed to wind and precipitation. Nonetheless, same-season reuse of a nest by the Song Sparrow (*Melospiza melodia*) has been reported several times (Gault, 1902; Nice, 1937:93; Dorsey, 1977). One nest housed four successive broods (Nice, 1937). In Texas the Lark Sparrow (*Chondestes grammacus*) frequently appropriates a nest of the Northern Mockingbird (*Mimus polyglottos*) as the site for its own structure (McNair, 1984). Lark Sparrows also build in abandoned nests of Pyrrhuloxias (*Cardinalis sinuatus*), flycatchers, thrashers, orioles, and towhees; reuse their own nests; and reuse nests of other Lark Sparrows (McNair, 1984).

Nest reuse in successive years has been reported in Acadian Flycatchers (*Empidonax virescens*) by Mumford (1964) and in Blue Jays (*Cyanocitta cristata*) by Weeks (1984). Mourning Doves (*Zenaida macroura*) are known to use their nests for several successive broods in a single season (Skutch, 1976), to reuse their nests from previous years (McClure, 1950), and to build in other species' nests that have survived winter storms (Bent, 1932:404–405; McClure, 1943). Cutts (1954) reported a nest used for seven broods during a 4-year period: one brood in 1951, one in 1952, two in 1953, and three in 1954. The sturdy, mud-lined nest of the American Robin (*Turdus migratorius*) may be used for two successive broods (Parmelee and Parmelee, 1978) or be refurbished the following season. Robin nests are sometimes appropriated by various species, including the Mourning Dove (Bent, 1932; Quay, 1954; pers. obs.), the Eastern Phoebe (Weeks, 1977; Parmelee and Parmelee, 1979), and the Dark-eyed Junco (*Junco hyemalis;* Butler, 1980). Robins have been known to use an abandoned nest of the

Eastern Phoebe as the foundation for their own nest (Parmelee and Parmelee, 1979).

Use of materials from one nest to build another is difficult to document because the bird must be seen while it is actually removing something for transport to another site. Dismantling of nests appears to be less frequent in temperate species than in tropical ones (Skutch, 1976). In most instances reported from temperate North America, dismantled nests have been ones made chiefly of plant downs or other soft materials with few linear, interlocking pieces that would hinder the process. Moving material from one nest to another is commonplace in the Blue-gray Gnatcatcher (*Polioptila caerulea*; Bent, 1949; Root, 1969). In 1963, Root (1969) found 42 nests, 23 of which were known to contain materials from a previous nest. Dismantling of a previously used nest to obtain materials for construction of a replacement nest has also been observed in the Alder Flycatcher (*Empidonax traillii*; McCabe, 1963). Trail (1987) reported the filching of materials from the nests of other species by the Eastern Wood-Pewee (*Contopus virens*). The victims were a Ruby-throated Hummingbird (*Archilochus colubris*) and a Summer Tanager (*Piranga rubra*). The behavior of the catbirds mentioned above is unusual in that the nest materials were interlocking twigs.

Reuse of nests or nesting materials offers the advantage of saving time and energy, which might be particularly important for pairs that are building a second or third nest and for those species that build large or complex nests. Disadvantages of reuse include instability of a structure that has been exposed to severe weather conditions, presence of parasites, and vulnerability to predators already aware of the site. For a discussion of the relative advantages and disadvantages, see Barclay (1988). For a discussion of the use of green plant materials to reduce the possibility of parasite infestation, see Wimburger (1984). For a discussion of nest appropriation as a probable factor in the development of nest parasitism in cowbirds, see Friedmann (1929).

Acknowledgements. Douglas B. McNair provided copies of useful references not otherwise available to me and made helpful comments on the manuscript. I am grateful for his assistance.

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Specimen of a Cinnamon Teal from North Carolina

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One of a pair of teal, a female, taken by Mike Brannen (USMC—Cp LeJeune, NC) and ourselves from the Hunting Creek Impoundment of the Goose Creek Gamelands on 20 March 1988, proved to be a Cinnamon Teal (*Anas cyanoptera*).

Five reports of the Cinnamon Teal are available from North Carolina, spanning a period of 53 years (Chat 1:51; 26:74–5; 34:76; 39:91; 53:43). These observations cover most of the coast of North Carolina from Knott's Island in Currituck County, Lake Mattamuskeet, Hyde County, Huntley's Impoundment (Morehead City), Carteret County, and Greenfield Lake (Wilmington), New Hanover County. The documented period of occurrence is from 29 December through 25 April. This is the first report from Pamlico County and the first specimen for the state.

Photographs of this teal were made, and sent to the North Carolina State Museum of Natural Sciences (NCSM bird photograph collection #053) along with the specimen (NCSM 15090). The bird had little fat and weighed 288 grams. It is an adult exhibiting no feather molt.

A Red-shafted X Yellow-shafted Flicker Intergrade in Carteret County, N. C.

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On 8 March 1988, while hiking along a trail through a maritime forest in the Roosevelt Natural Area, Carteret County, N.C., I discovered a pile of feathers on the ground. The feathers were clumped in a tight circle and appeared to have been recently plucked by an avian predator. I recognized the feathers as those of a Northern Flicker (*Colaptes auratus*) because of their bright lemon-yellow shafts. Upon closer examination, however, I noticed several feathers with orange-ish shafts and others with salmon-red shafts. I collected seven tail and wing feathers and sent them to the National Museum of Natural History in Washington, D.C. They were identified as those of an intergrade between the red-shafted and yellow-shafted forms of the Northern Flicker. The feathers are now in the collection at the North Carolina State Museum of Natural Sciences (NCSM 15089).

The Red-shafted Flicker (*C. a. cafer*) breeds from the Great Plains westward, whereas the Yellow-shafted Flicker (*C. a. auratus*) breeds throughout eastern North America east of the Rocky Mountains (A.O.U., 1983). Where the ranges of these two subspecies overlap in the western Great Plains, intergradation occurs frequently (Moore and Koenig, 1986; Grudzien, et al., 1987). Such intergrades are relatively rare migrants in the east. I am aware of only two published sight records for North Carolina: one in the fall of 1965 on the Outer Banks, Dare County (Sykes, 1967), and another in the fall of 1973 at Lake Surf, Moore County (Carter, 1974). This report apparently represents the only occurrence of a flicker intergrade in North Carolina documented by physical evidence.

I thank Richard C. Banks, National Museum of Natural History, for examining the feathers and verifying the taxonomic status of this flicker.

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Second Record of American Avocet from the Mountain Region of North Carolina

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Bill Branch and I saw an American Avocet (*Recurvirostra americana*) on 3 July 1985 at Cashiers Pond, Jackson County, N.C. The avocet was first seen at 0930 h standing in very shallow water on a broad flat rock. The bird was in full breeding plumage and the bill was only slightly upturned, suggesting it was probably a male (Palmer in Stout, 1967). The avocet did not sweep its bill from side-to-side in the scummy water and I saw no other behaviors indicating that it ever fed. The avocet did drink a great deal, however, tipping the bill up and down between sips in the water or tipping its head up and letting the water run down the bill. The avocet also appeared to sip water while the bill was held down at the surface of the pond.

When I returned to the pond in the afternoon at 1822 h, the avocet flew up from the pond without being disturbed, circled it several times until it reached a height of about 150 m and flew south. I assumed the bird continued its migration because it was not seen again.

Our record is only the second for the species from the North Carolina mountains. The other occurred near Glendale Springs on the Blue Ridge Parkway on 22 September 1968 when two avocets were seen on the edge of a six-acre pond by G. Gidley (Chat 32:106). There are only ten additional inland records for the Carolinas, all since 1964, seven from North Carolina and three from South Carolina; seven of these records are from the Piedmont and three are from the Coastal Plain (Hader, 1969; Mattocks, 1969; Hamel and Tedards, 1975; Enders, 1984; Chat 28:143; Chat 38:27; Chat 41:54; Chat 44:47; Chat 45:49; Chat 46:22). All but two of these ten records are of single individuals. Previous dates of occurrence are 25 July to 16 October, and our record of 3 July is the earliest for the postbreeding migration period. The weather had been unusually cold for the three previous days as a strong cold front passed through the region.

Chamberlain and Chamberlain (1966) reviewed the status of the American Avocet and documented an increase over the past thirty years. Since their review, American Avocets have continued to increase on the coast. The increase of reports inland since 1964 complements this pattern.

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Village Weaver Photographed on Seabrook Island, S. C.

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During the period 25–29 July 1988, a male Village Weaver (*Ploceus cucullatus*) visited Hipp's feeder on Seabrook Island, Charleston County. This individual appeared to be in good condition, and had unfrayed plumage. It fed about 3 m from a window, and Hipp succeeded in obtaining three color photographs (ChM No. 1988.72). Although the pictures are out of focus, their resolution is sufficient to allow identification.

Although we prefer to classify this individual as an escape, this species is seldom kept in captivity, mainly because of its aggressivity. (Indeed, Hipp saw the bird supplant a female Boat-tailed Grackle, [*Quiscalus major*], at her feeder.) Henry M. Stevenson and B. D. Neville (pers. comms.) told us that the Village Weaver has not been reported from the wild in Florida. As the species is established on Hispaniola (AOU. 1983. Check-list of North American Birds. 6th ed., American Ornithologists' Union, Washington, D. C.), there is a remote chance that this individual arrived in South Carolina as a vagrant from the West Indies. Pending acceptance by the South Carolina Avian Records Committee, the documentation cited or contained herein will enable this species to be put on the South Carolina Provisional II List.

First Instance of a Sooty Tern's Hatching on the Atlantic Coast of North America

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On 17 June 1988, Mark Spinks, Chance Carter and I located a pair of Sooty Terns (*Sterna fuscata*) nesting on Raccoon Key, Cape Romain National Wildlife Refuge, Charleston County, S.C. This site is 7.4 km west of a 1987 nesting site that was on Cape Island, and which is the second nesting site in the state (Chat 52:40, 1988). As in 1987, the Sooty Tern nest was associated with Black Skimmers (*Rynchops niger*), 188 nests, and Gull-billed Terns

(*Sterna nilotica*), 58 nests. The 1987 nesting site had been abandoned. We assume that the same group of birds nested on Raccoon Key in 1988. The single Sooty Tern egg was under a clump of Beach Elder (*Iva imbricata*) close to Black Skimmer and Gull-billed Tern nests. For reference, we marked a stranded log 3 m west of the nest. On 15 July, we relocated the nest and found a dark gray, ca. 1-day-old Sooty Tern chick 25 cm from the nest. The chick had apparently died only a few hours before our arrival. We collected the chick for the Charleston Museum (ChM No. 1988.74). This chick appears to represent the first verified record of a Sooty Tern's hatching on the Atlantic coast of North America.

[S. C. Editor's Note: The first South Carolina Sooty Tern nest was found in 1980 (Chat 51:51, 1987). —WP]

CBC Rare Bird Alert
(704) 332-BIRD

BRIEFS FOR THE FILES

HARRY E. LeGRAND, JR.

(all dates 1987)

RED-NECKED GREBE: Two were seen flying over the surf at Bodie Island, N.C., on 13 November by Harry LeGrand.

EARED GREBE: Perhaps just the second specimen for North Carolina was one found dead on a street in Atlantic Beach, apparently having hit a powerline at night, on 26 September by Bob Holmes. Just as notable, especially for length of stay, was one at the Goldsboro, N.C., waste treatment ponds from 17 September to 31 October (Eric Dean and others).

AUDUBON'S SHEARWATER: Dennis Forsythe observed a rather late bird off Mount Pleasant, S.C., on 8 November.

LEACH'S STORM-PETREL: On pelagic trips off Oregon Inlet, N.C., one was noted on 8 August by the Merrill Lynch party and three were seen on 12 September by Wayne Irvin and others.

BAND-RUMPED STORM-PETREL: Bob Odear and party noted small numbers off Oregon Inlet during a series of trips from 21 to 24 August, with the peak count of eight birds.

MASKED BOOBY: An excellent total of three birds, all subadults or adults, was made by Bob Odear, Wayne Irvin, and others off Oregon Inlet on 22 August.

AMERICAN WHITE PELICAN: In a remarkable incident, an immature landed on the roof of the Hampstead, N.C., post office during a storm on 9 November. Because of the steep angle of the roof, it was not able to take off, and it was captured on 11 November and flown to Texas for release. Sam Cooper, Kitty Kosh, and Jeremy Nance were able to confirm the record. Others in North Carolina were one at a Brown Pelican colony in Ocracoke Inlet most of the summer, at least to 21 August, when noted by John Fussell, and one on an island in Hatteras Inlet on 26 November (Claudia Wilds). David Allen observed one at a pond at Williston, S.C., during the first week in November.

GREAT CORMORANT: One immature spent the summer in the bight at Cape Lookout, N.C., according to Paul Henchcliff; John Fussell and Brainard Palmer-Ball observed it on 9 August. An immature was rare at Cedar Island, N.C., on 19 November (David Disher).

DOUBLE-CRESTED CORMORANT: David Wright noted three birds all summer on Lake Norman, N.C., whereas five on 27 October at Lake Julian in Buncombe County, N.C. (Robert Ruiz) was an uncommon mountain report.

ANHINGA: At a pond near Weldon, N.C., where nesting has been suspected, Randy Yelverton had a peak count of five on 2 September, with one there on 14 September. Quite unusually late, especially for the piedmont (where the birds do not breed), was a male seen at Big Lake in Umstead State Park, N.C., on 17 November. Robert Davies saw the bird swimming, plus drying its wings on a stump; the white on the wings was clearly seen.

HERON ROOST: Jay Carter reported a roost and heronry on 4 August in a flooded borrow pit pond at the intersection of SC 912 and US 15-501 near Society Hill, S.C. He noted some nests with large young, of unknown species. About 200 birds, mostly Cattle Egrets, were present among seven wader species, plus two Anhingas. A Snowy Egret and a Tricolored Heron were also at the roost.

GREAT EGRET: One lingered near Greensboro, N.C., to the end of November, as seen by Herb Hendrickson.

SNOWY EGRET: A notable piedmont count was five post-breeding birds at Jordan Lake, Chatham County, N.C., on 26 August (Bill and Margaret Wagner). Four Snowies were seen by Philip Crutchfield near Fayetteville, N.C., on 5 August.

TRICOLORED HERON: Robin Carter found one at a farm pond near Great Falls, S.C., on 13 September and he and George McCoy saw three others at Columbia, S.C., on 13 September. Others inland, all single birds, were at Merchants Millpond State Park, N.C., 29 July and 5 August (Floyd Williams), at Jordan Lake on 22 August (Anson Cooke), and Sandy Beach Waterfowl Area near Lake Moultrie, S.C., on 27 September (Carter).

REDDISH EGRET: Perry Nugent and others found an immature at Seabrook Island, S.C., on 13 September, with three immatures there on 17 September. [Birders should be aware that the only field guide that describes and illustrates the immature bird, all pinkish-gray in plumage with a black bill, is the National Geographic Society's Field Guide to the Birds of North America.—HEL]

CATTLE EGRET: Rather scarce in fall in the piedmont were four birds at Falls Lake near Durham, N.C., on 10 September (Ricky Davis).

BLACK-CROWNED NIGHT-HERON: Bill and Margaret Wagner observed two at Jordan Lake on 12 August; the birds were flying to a roost with other herons and egrets. Eric Dean had an excellent inland count of ten at Goldsboro on 20 September, and Jim Mulholland saw an adult at Lake Wheeler near Raleigh, N.C., on the late date of 12 November.

YELLOW-CROWNED NIGHT-HERON: Bill and Margaret Wagner noted two birds flying to a roost at Jordan Lake on 12 August; also seen were 50 Great Egrets, 30+ Little Blue Herons, 30+ Great Blue Herons, 25+ Green-backed Herons, and six White Ibises.

WHITE IBIS: A good count of 12 was made by Peter Worthington at Lake Hartwell, S.C., on 29 August. Eight birds were at Jordan Lake on 1 September (Harry LeGrand, Merrill Lynch, Derb Carter), one was at Greensboro from 10 August to 6 September (Herb Hendrickson), and one was at Oxford Dam at Lake Hickory, N.C., on 29 and 30 August (Derek Carrigan). As usual, all inland birds seen were immatures.

GLOSSY IBIS: Merrill Lynch had a very good inland count of four birds, seen flying over the Tar River at Rocky Mount, N.C., on 9 August.

ROSEATE SPOONBILL: Seldom reported from the Carolinas, one individual was seen on 18 October and for a few days thereafter near the mouth of the Savannah River, S.C. Louise Lacoss and other members of the Hilton Head Audubon Society observed the spoonbill.

WOOD STORK: Very rare inland was an immature seen by Philip Crutchfield at Becker's Sand and Gravel Company near Fayetteville from 17 to 21 September. Elsewhere in North Carolina, a group of 25 birds was reported by Bonnie Harris at golf course ponds at Oak Island on 23 October, the previously reported bird at Bodie Island was last noted on 14 August (Alan Barron), and one (likely the Bodie Island bird) was seen flying south at nearby Pea Island on 18 August (Barron). The best count of the post-breeding flock at Silver Bluff Sanctuary in Aiken County, S.C., was 124 (no date specified—fide Anne Waters). Also on an unspecified date in the fall was one seen inland near the intersection of I-26 and I-95, S.C., by Simon Thompson.

NORTHERN PINTAIL: A male was noted by Ricky Davis and Harry LeGrand at North Pond on Pea Island on 22 October, and possibly the same bird was seen at South Pond on that refuge on 14 and 15 November by Davis and others. Very rare in South Carolina was a male at Magnolia Gardens near Charleston on 12 November, as seen by Charlie Walters.

COMMON EIDER: Quite early was a female first noted by Phil Doerr in late October at Long Beach, N.C. Many other birders saw the eider as late as the end of December.

HARLEQUIN DUCK: David Disher had a notable find of an adult male in Ocracoke Inlet, N.C., on 19 November.

OLDSQUAW: Always of interest inland, two birds were found by Ricky Davis at Beaverdam Reservoir in northern Wake County, N.C., on 21 November, and another remained at Goldsboro from 13 to 30 November (Eric Dean et al.).

SCOTERS: Eric Dean surveyed waterbirds almost daily this fall at the Goldsboro waste treatment plant. He had one record for each of the three scoter species: a Black on 31 October, one to three Surfs from 12 to 28 October, and a White-winged on 3 and 4 November. Interestingly, no inland scoter sightings were reported elsewhere in the Carolinas in the fall.

COMMON GOLDENEYE: One was very uncommon at Goldsboro from 16 to 19 November (Eric Dean).

HAWKS AT PILOT MOUNTAIN, N.C.: Ramona Snavely, Jim and Pat Culbertson, and others from Winston-Salem, N.C., manned a hawk migration station on Pilot Mountain in Surry County. Totals for September were:

Osprey	33	Broad-winged Hawk	11,724
Northern Harrier	5	Red-tailed Hawk	21
Sharp-shinned Hawk	63	American Kestrel	2
Cooper's Hawk	5	Merlin	2
Red-shouldered Hawk	1	Peregrine Falcon	2

BLACK VULTURE: The species is quite uncommon in the mountains; thus notable were totals at Warrior Mountain near Tryon, N.C., of six on 26 September and four on 23 November (Simon Thompson). The best count from Buncombe County, N.C., was three in southern Asheville on 14 November (Robert Ruiz).

MISSISSIPPI KITE: An adult or subadult was seen by Philip Crutchfield near Harrison's Creek in southern Cumberland County, N.C., on 21 August.

BALD EAGLE: A major post-breeding concentration of eagles was reported by John Cely from the Wateree River just below Wateree Dam in Kershaw County, S.C. He noted 17 birds, mostly immatures, in early August. There were numerous reports from the Carolinas of one or two birds.

SHARP-SHINNED HAWK: About a month early was a bird noted migrating southward at Corolla, Currituck County, N.C., on 5 August by John Fussell.

NORTHERN GOSHAWK: Rick Knight observed one at Carvers Gap on Roan Mountain, N.C., on 22 November.

BROAD-WINGED HAWK: Simon Thompson noted a good flight in late September in Polk County, N.C. He counted 362 from Warrior Mountain on 23 September and 2,777 from Saluda on the next day, plus 214 birds on 26 September at Asheville, N.C.

MERLIN: Inland sightings for the fall, all in North Carolina, were of single birds in Gates County during late October (Floyd Williams), at Jordan Lake on 7 November (Douglas Shadwick, Maurice Graves), and in an urban section of Raleigh on 11 November (Ricky Davis).

PEREGRINE FALCON: This species appears to be increasing as a fall migrant through the Carolinas, as evidenced by an unusual number of inland reports (all in North Carolina). Near Tryon were two on 25 September and one on 1 October (Simon Thompson), one was near Raleigh on 3 October (Jim Mulholland), one was at the Wilson Country Club on 4 October (Dick Ziegler), another was at Jordan Lake on 30 October (Ricky Davis), and one was seen in central Halifax County on 15 November (Frank Enders).

YELLOW RAIL: Most unusual, and seemingly early as well, was one flushed from a field of tall crabgrass by Floyd Williams and his dog on 11 September in Gates County, N.C. He reported a "prominent white wing patch on either wing" and that "the bird was generally yellowish brown with dark streaking on the back." Perhaps even more significant was that John Cely was able to elicit calling from a Yellow Rail by clicking rocks at night at a grassy Carolina bay in eastern Richland County, S.C. The bird called for five minutes on 29 October, but Cely was not able to see it.

CLAPPER RAIL: This species, though a permanent resident of coastal marshes, does undergo a substantial nocturnal migration from northern marshes, and a few birds have previously been found inland, usually as victims of collisions with TV towers or other tall structures. This fall, both inland records were apparent nocturnal collision victims: individuals found dead in Goldsboro on 1 September (Eric Dean) and at Beaverdam Reservoir in Wake County on 21 September (Ricky Davis).

PURPLE GALLINULE: Eric Dean and others saw an immature far inland at Goldsboro on 19 and 20 September.

COMMON MOORHEN: An immature was found dead in a yard in southeastern Greenville County, S.C., in late October, according to Peter Worthington.

SANDHILL CRANE: Four migrants, undoubtedly blown off course to the east, were seen circling over Cape Hatteras point, N.C., on 29 October by Kent Turner. Just as notable was one that appeared in late October near Nebraska, Hyde County, N.C., and remained into the winter, as seen by Larry Ditto and other birders. This crane fed mainly inside an open pen for captive Canada Geese, eating grain spread on the ground for the geese.

BLACK-BELLIED PLOVER: An excellent inland count of ten was made by Ricky Davis at Falls Lake on 8 October, and one was notable at Goldsboro from 7 to 12 October (Eric Dean).

LESSER GOLDEN-PLOVER: Ricky Davis had many records from Falls Lake, including nine on 4 September, five on 28 October, and one on the late date of 12 November. He also found four plovers at nearby Jordan Lake on 9 September. The best coastal count was just three birds, at Cape Hatteras point on 1 October (John Fussell).

SEMIPALMATED PLOVER: Philip Crutchfield had four birds near Fayetteville on the late date of 9 November.

UPLAND SANDPIPER: Fall reports came from North Carolina at Currituck Banks, Salvo, Cape Hatteras, and Beaufort, and from Charleston, S.C. The best total was ten at the airport in Beaufort on 16 August (John Fussell).

WHIMBREL: Very rare away from the coast was one seen at Jordan Lake on 1 September by Derb Carter and on the following day by Douglas Shadwick.

LONG-BILLED CURLEW: On 21 August John Fussell noted at least two at Portsmouth Island, N.C., and a presumably different bird on the southwestern tip of Ocracoke Island, just a few miles away. He also saw a Long-billed on Shackleford Banks, N.C., on 9 August, and possibly this individual was the one encountered by Merrill and Karen Lynch on that island on 28 November.

HUDSONIAN GODWIT: Probably never before reported from Currituck County, N.C., one was seen by John Fussell in a flooded pasture about 2 miles south of the Virginia line on 23 August. Among the many sightings from Pea Island, N.C., where regular in fall, was a very high count of seven birds on 8 and 9 September (Sam Cooper).

RED KNOT: Rarely found inland, one was found by Harry LeGrand at Jordan Lake on 22 August.

SANDERLING: Merrill Lynch saw a rather early individual, for an inland site, at a lake near the Raleigh-Durham Airport, N.C., on 2 August. Ricky Davis had a peak count at Jordan Lake of seven Sanderlings on 9 September and a late individual at Falls Lake on 12 November.

WESTERN SANDPIPER: Notably high inland counts were 75 at Jordan Lake on 1 September (Derb Carter, Harry LeGrand, Merrill Lynch), and 45 at Falls Lake on 2 September (Ricky Davis).

WHITE-RUMPED SANDPIPER: This species is surprisingly scarce inland in the fall; thus, noteworthy were one to four at Goldsboro from 27 September to 1 October (Eric Dean), three at New Bern, N.C., on 26 September (Bob Holmes), and two at Falls Lake on 4 September (Ricky Davis).

BAIRD'S SANDPIPER: Very rare in South Carolina was one, identified as a juvenile, seen by Dennis Forsythe in Brittlebank Park in Charleston on 3 September. Individuals in North Carolina were found in northeastern Gaston County on 4 September (David Wright), at Cape Hatteras point on 23 August (Bob Odear party), and at the latter site on 10 and 11 October (Chris Marsh, John Fussell, Jeremy Nance).

DUNLIN: An excellent inland count was 65 at Falls Lake on 28 October, as seen by Ricky Davis. Other inland reports in North Carolina were one at Lake Norman in Lincoln County on 1 November (Heathy Walker et al.), one near Lillington on 6 November (Harry LeGrand), and three at Fayetteville on 9 November (Philip Crutchfield). Six were seen at Santee National Wildlife Refuge, S.C., on 24 October (Robin Carter et al.).

CURLEW SANDPIPER: One, in non-breeding plumage, was observed closely at Bodie Island, N.C., on 7 August by Harry LeGrand and Mike Tove. John Fussell also noted one in non-breeding plumage at Pea Island on 23 August.

STILT SANDPIPER: An excellent total away from the coast was 26 birds seen by Bob Holmes at New Bern on 9 August. Eric Dean saw two birds still in breeding plumage at Goldsboro on 1 August.

BUFF-BREASTED SANDPIPER: Fall migrants in the Carolinas continue to be in low numbers compared to those of a decade ago, when they were somewhat regular even at inland sites. The only reports for the fall were from Cape Hatteras point, with one very early on 2 August (Alan Barron), as many as four between 13 and 28 August (Derb Carter et al.), and two on 11 October (Jeremy Nance, John Fussell).

SHORT-BILLED DOWITCHER: The highest inland count was 21 birds noted by Merrill Lynch at Jordan Lake on 26 August.

LONG-BILLED DOWITCHER: Always noteworthy inland, one to two were present at Goldsboro from 18 September to 19 October (Eric Dean), one at Falls Lake on 10 September and three there on 8 October (Ricky Davis), and one at Jordan Lake on 11 October (Harry LeGrand).

WILSON'S PHALAROPE: Eric Dean saw a rare inland phalarope at Goldsboro from 17 to 24 September. Along the coast, two were at Eagle Island near Wilmington, N.C., on 22 August, with one remaining to 29 August (Kitty Kosh), and one was somewhat late at Pea Island on 2 October (Harry LeGrand).

RED-NECKED PHALAROPE: In addition to pelagic sightings, two birds were found at a pond at Cape Hatteras on 5 September by John Fussell and another was seen at a pond at Pea Island on 4 October by Merrill Lynch and Allen Bryan.

RED PHALAROPE: This species is seldom seen in the fall before October; therefore two studied at close range on a pelagic trip off Oregon Inlet on 8 August (Merrill Lynch, Derb Carter, Harry LeGrand, Mike Tove) were unusual.

POMARINE JAEGER: Perhaps just the second and third inland records for North Carolina were individuals carefully observed on 9 September at Jordan Lake by Ricky Davis and Wayne Irvin and on 18 September at the Goldsboro waste treatment plant by Davis, Derb Carter, Eric Dean, and others.

PARASITIC JAEGER: Dennis Forsythe noted one off Mount Pleasant, S.C., on 8 November, and two were seen from shore at Bodie Island on 15 November by Ricky Davis and Harry LeGrand.

COMMON BLACK-HEADED GULL: Perry Nugent observed an immature at Mount Pleasant on 29 October, for a very rare South Carolina record.

BONAPARTE'S GULL: A good inland total of 75 was reported by Merrill and Karen Lynch at Tuckertown Reservoir, Rowan County, N.C., on 26 November.

LESSER BLACK-BACKED GULL: Notable early records were an adult at North Folly Beach, S.C., on 19 September (Perry Nugent et al.) and three (one adult and two subadults) at Cape Hatteras on 1 October (John Fussell).

GLAUCOUS GULL: Claudia Wilds observed a first-winter bird at the Bodie Island lighthouse pond on 27 November.

SABINE'S GULL: One of the rare pelagic species off the Carolinas, one bird was carefully identified by Wayne Irvin and party off Oregon Inlet on 13 September.

SANDWICH TERN: Alan Barron reported two to three juveniles with completely yellow bills during the summer at Cape Hatteras. One bird even had yellow legs and a bright yellow bill. There have been two previous reports from this site of Cayenne Terns, generally considered to be a yellow-billed race of Sandwich Tern. This report casts some doubt on the Cayenne sightings, as this "species" occurs primarily along the northern coast of South America.

ROSEATE TERN: Sam Cooper saw a first-summer bird at Cape Hatteras point on 19 August. The species was regularly sighted there in July, but no nesting was found.

COMMON TERN: Claudia Wilds and John Fussell carefully noted two in juvenal plumage at Cape Hatteras point on the very late date of 27 November. [There is a growing concern among the nation's birding experts that the great majority of Common Terns reported along the

Atlantic coast in winter, such as on Christmas counts, are misidentified Forster's Terns. Are there winter specimens from the Carolinas that would verify the species' presence after late November?—HEL]

ARCTIC TERN: Three individuals of this difficult-to-identify or overlooked pelagic species were observed off Oregon Inlet on 22 August by Wayne Irvin, Bob Odear, and party.

FORSTER'S TERN: Notable for the mountains was one seen by Robert Ruiz at Lake Julian on 27 October. Ricky Davis had a notable inland count of 28 Forster's at Jordan Lake on 9 September.

SOOTY TERN: Normally uncommon and difficult to find on Gulf Stream pelagic trips, Sooties were present in larger numbers than usual off North Carolina in early fall, with a peak total of 24 off Oregon Inlet on 22 August (Wayne Irvin et al.). Sooties seen from shore were one near Harker's Island, N.C., on 6 August (Paul Henchcliff) and two at Folly Beach, S.C., on 8 August (Perry Nugent).

BRIDLED TERN: In addition to many reports off of Oregon Inlet, Dennis Forsythe noted eight off Mount Pleasant on 22 August, and Perry Nugent and party reported three birds from shore at Folly Beach on 8 August.

WHITE-WINGED DOVE: One of the few records for North Carolina was one seen clearly, by John Fussell, flying with Mourning Doves in central Ocracoke Island on 21 August. According to details provided by him, the White-winged was "similar in size to Mourning Doves, but appeared bulkier. White wing patches and relatively short tail seen well."

BLACK-BILLED CUCKOO: Single migrants were encountered at Corolla, N.C., on 13 September (Ricky Davis), at Wrightsville Beach, N.C., on 18 September (Greg Massey), at New Bern on 4 October (Bob Holmes), and at Mount Pleasant on 2 October, when netted and banded by Will Post.

COMMON NIGHTHAWK: Notable fall coastal flights were 100+ at Seabrook Island, S.C. , on 13 September (Perry Nugent et al.) and 65 at Wilmington on 1 September (Kitty Kosh). Along the edge of the Blue Ridge, where common as a fall migrant, Simon Thompson had counts at Warrior Mountain near Tryon of 852 on 1 September, 1,080 on the 2nd, and 500+ on the 3rd.

CHIMNEY SWIFT: Bill and Margaret Wagner noted a large concentration of 800 swifts, along with 200+ Tree Swallows, at Falls Lake on 10 October.

RUFOUS HUMMINGBIRD: An immature was present at a feeder in Bayview, Beaufort County, N. C., from 2 to 8 August, as noted by Joe and Polly Rowlett and Mary McLaurin. Ric Carter provided a photo for the N.C. State Museum. A female-plumaged *Selasphorus* hummingbird, most likely this species, was seen at Johns Island, S.C., on 23 November by Berle Momier, fide Perry Nugent.

DOWNY WOODPECKER: Believed to be absent as a breeder on Ocracoke Island, one bird was seen along the Hammock Hills nature trail on that island on 14 July by Alan Barron and others.

OLIVE-SIDED FLYCATCHER: The only fall report was one on the rather late date of 5 October at Goldsboro, as seen by Eric Dean.

YELLOW-BELLIED FLYCATCHER: This elusive migrant was encountered on a number of occasions, all single individuals: 7 September in Aiken County, S.C. (Anne Waters), banded at Mount Pleasant on 24 September (Will Post), on 26 September at Carolina Beach State Park, N.C. (Kitty Kosh), on 29 September in Gates County (Floyd Williams), on 29 September at Corolla (John Fussell), and on 5 October at Carolina Beach State Park (Sam Cooper, James Parnell).

LEAST FLYCATCHER: Will Post banded one at Mount Pleasant on 14 September, and another was studied carefully in northern Mecklenburg County, N.C., on 19 September by David Wright.

VERMILION FLYCATCHER: Always an exciting find in the Carolinas was an immature male seen by Perry Nugent, Cheryl Phillips, Will Post, and others at Mount Pleasant on 7 October.

WESTERN KINGBIRD: All four fall reports came from the North Carolina Outer Banks in October. The only record of more than a single bird was of two kingbirds seen at Avon on 2 October by Wayne Irvin and others.

SCISSOR-TAILED FLYCATCHER: One was a rare sighting at the Bennettsville, S.C., airport in early July (fide John Cely).

HORNED LARK: Seldom reported from the coast, ten larks were noteworthy on 31 October at Huntington Beach State Park, S.C. (Robin Carter).

TREE SWALLOW: Sam Cooper observed a tremendous flock, estimated at 100,000+ birds, at Eagle Island near Wilmington on 6 November.

ROUGH-WINGED SWALLOW: Normally having departed by the end of August, several birds remained unusually late in North Carolina. One was south of Raleigh on 15 October (Jim Mulholland), two were west of that city on 10 October (Harry LeGrand), and two were at Saluda on 2 October (Simon Thompson).

CLIFF SWALLOW: Locally notable were ten seen in northern Colleton County, S.C., on 19 September by Robin Carter, George McCoy, and Matt Johnstone, and four were seen at Landrum, S.C., on 13 September by Simon Thompson.

CAROLINA CHICKADEE: One was a casual visitor to Cape Lookout, N.C., on 9 August, as noted by John Fussell and Brainard Palmer-Ball.

SEDGE WREN: The only inland sighting was one found by Philip Crutchfield and Doris Chambers near Fayetteville on 1 November.

PHILADELPHIA VIREO: This species continues to be observed regularly in the fall; this may be just a matter of increasing birder activity rather than a population increase. Single birds were seen in North Carolina at Gates County on 7 September and 29 September (Floyd Williams), at Corolla on 13 September (Ricky Davis) and 29 September (John Fussell), at Carolina Beach State Park on 26 September (Kitty Kosh), and near Tryon on 3 October and 26 October (Simon Thompson). The only South Carolina report was of one seen at Charleston on 26 September by Charlie Walters.

BREWSTER'S WARBLER: Harry LeGrand and Wayne Irvin saw one individual of this hybrid on Ocracoke Island on 3 October.

TENNESSEE WARBLER: This species generally arrives in the Carolinas in fall in early to mid-September; thus, several weeks early was one near Corolla on 23 August (John Fussell).

NASHVILLE WARBLER: Herb Hendrickson saw an early individual at Greensboro on 21 August. Other Nashvilles were found at Pea Island on 13 September (Allen Bryan, Jeremy Nance), at Fort Fisher, N.C., on 26 September (Kitty Kosh), at Falls Lake on 1 October (Ricky Davis), at Ocracoke on 1 October (John Fussell), and at Charleston on 5 October (Perry Nugent).

PRAIRIE WARBLER: A notable count for late fall was four birds still present along the Lake Mattamuskeet, N.C., causeway on 13 November (Ricky Davis party).

CERULEAN WARBLER: This species appears to pass through the Carolinas in the "fall" mainly in August, and primarily in the mountains and extreme western piedmont. Not surprisingly, the only sightings for the season were single birds found by Simon Thompson at Tryon on 19, 21, and 30 August, plus two birds on 23 August.

CONNECTICUT WARBLER: Disappointingly, there was just one fall sighting—one seen by John Fussell at Ocracoke Island on 1 October.

MOURNING WARBLER: Simon Thompson saw an immature on Warrior Mountain near Tryon on 19 August, and Sam Cooper saw a male at Carolina Beach State Park on 2 October.

WILSON'S WARBLER: This uncommon migrant was noted on the North Carolina coast at Corolla from 29 September to 10 October (John Fussell, Jeremy Nance), near Duck on 13 September (Ricky Davis), at Pea Island on 4 October (Merrill Lynch), and at Fort Fisher on 26 September (Kitty Kosh).

CANADA WARBLER: Scarce along the coast was a migrant seen by Jeremy Nance in Wilmington on 31 August. Another Canada hit a window and died at Hillsborough, N.C., on the very early date of 6 August (Don Tripp).

SCARLET TANAGER: Approximately a month late was one seen near Ringwood in Halifax County, N.C., on 22 November by Merrill Lynch.

PAINTED BUNTING: One was reported at Aiken, S.C., where apparently not known as a breeder, on 12 June by Theresa Randall.

DICKCISSEL: Most fall records in recent years have been from the North Carolina Outer Banks, of birds calling overhead in the morning.

Such was the case with six circling overhead at Pea Island on 18 October (Ricky Davis, John Fussell, John Wright), one at Pea Island on 26 September (Davis), and one at Avon on 2 October (Davis, Harry LeGrand). Frank Enders banded an individual in central Halifax County on 3 October.

CLAY-COLORED SPARROW: The only inland report in the fall was one carefully studied by Harry LeGrand at Jordan Lake on 11 October. Along the coast, where regular in small numbers, single birds were found at Pea Island on 19 September by John Fussell and Bob Holmes, at that site on 8 and 11 October by Fussell, and at Fort Fisher on 25 September and 8 October by Sam Cooper.

LARK SPARROW: The only fall sighting other than at Pea Island was near Carolina Beach on 9 November, as noted by Sam Cooper and James Parnell.

LINCOLN'S SPARROW: This secretive migrant was seen in the mountains at Fairview, N.C., on 18 October by Ruth and Jerry Young, and in the coastal plain at known wintering sites at First Colony Farms near Lake Phelps, N.C., on 16 October (Ricky Davis) and just northeast of Lake Mattamuskeet, N.C., on 29 November (Harry LeGrand, Derb Carter).

WHITE-CROWNED SPARROW: Rare in the southern coastal plain of North Carolina were two birds noted by Philip Crutchfield and Doris Chambers near Fayetteville on 1 November.

LAPLAND LONGSPUR: Ricky Davis observed one on a mudflat at Falls Lake on 28 October. Along the coast, three were noted at Cape Hatteras point on 15 November by Sam Cooper, and two were seen with Horned Larks at Huntington Beach State Park on 31 October by Robin Carter.

SNOW BUNTING: Single birds were found by Ricky Davis on mudflats at Falls Lake on 12 and 21 November, and another was seen inland just south of Roanoke Rapids Lake, N.C., along a dirt road in a clear-cut, on 6 November by Randy Yelverton. Sam Cooper noted six buntings at Cape Hatteras on 15 November.

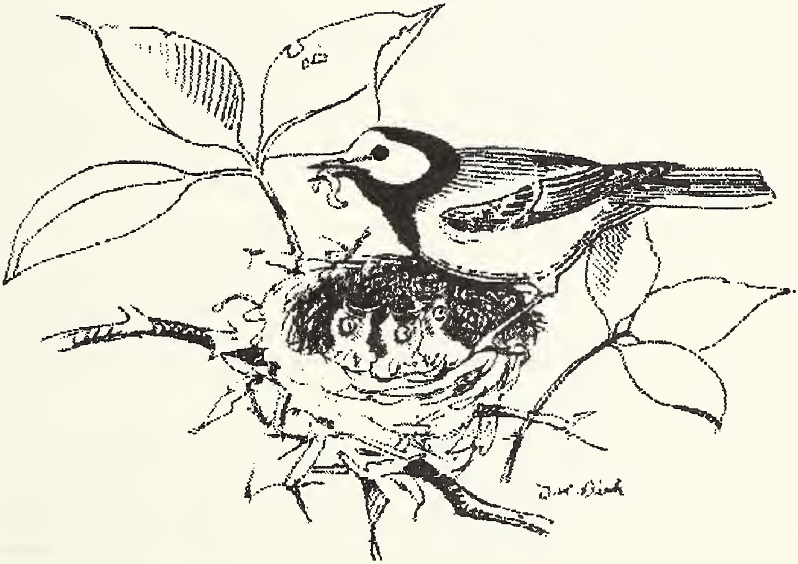
YELLOW-HEADED BLACKBIRD: Rare but regular on the Outer Banks in early fall was a female observed by Robert Ake and party at Cape Hatteras point on 6 September.

BREWER'S BLACKBIRD: Greg Massey and Jim Pearson observed two birds in a pig feedlot near Lake Mattamuskeet on 21 November.

RED CROSSBILL: The only fall sighting was at a most unlikely place for this "winter finch": at Wilmington, where three were noted by Greg Massey on 26 October.

PINE SISKIN: A moderate fall flight occurred into the Carolinas, with the highest total reported being 138 on 30 October at Saluda, N.C. (Simon Thompson).

EVENING GROSBEAK: The fall flight was light to moderate, with the best numbers being in the mountains. Rick Knight had a good count of 80+ at Roan Mountain on 22 November.



BOOK REVIEW

COLLINS FIELD NOTEBOOK OF BRITISH BIRDS

Roger Lovegrove and Philip Snow. 1986. William Collins Sons & Co. Ltd., London; distributed by Penguin Books, 40 W 23rd Street, New York, N.Y. 10010. 5 x 7 3/4 x 3/4 inches. Illus. by Philip Snow. Index. 128 p. $21.95.

Here is a truly different kind of field guide. Within a three-section plastic folder the bird student has a compact paperback field guide inserted in the panel that forms the front cover, a British Trust for Ornithology Field List of British Birds inserted in the panel that forms the back cover, and a note pad for writing down observations inserted in a third panel that folds inward against the back cover. The third panel can be inserted between the pages of the field guide to mark the reference while further observations are being made. Although there is not a specified place for a pencil, one fits easily into the crevice along the spine of the plastic folder. The entire package is small enough to fit in most jacket pockets even when the note pad is being used as a bookmark. The back cover of the field guide has a very useful Quick Index that lists 36 groups of birds plus some miscellaneous species that do not belong to any of the groups named. Designed primarily for the beginner, the guide covers the 280 species found most regularly in Britain. The well-written text is presented in complete sentences, as opposed to the telegraphic phrases generally found in field guides. The illustrations, though less detailed than those of Roger Tory Peterson, Arthur Singer, H. Douglas Pratt and others, give good quick impressions. Snow's essay on sketching birds is a pleasant surprise.

Lovegrove and Snow's otherwise very appealing guide to the study of British birds suffers from use of small type in the main text and in the additional material crowded between the illustrations. The problem is compounded by narrow margins and a lack of white space between paragraphs. Anyone who must don reading glasses to look up numbers in the telephone directory will find the *Collins Field Notebook of British Birds* awkward to read in the field even though turning to the proper illustration might be surprisingly easy with just a little experience.

Collins and other publishers offer conventional guides to the birds of Britain or to those of Britain and Europe. Even though the type in most of the other guides is not much larger than that in the Collins *Notebook*, adequate white space makes standard-format guides generally easier to read. Bird watchers who want to have the rare species illustrated will definitely prefer one of the standard guides. Someone planning a trip to Great Britain might want Lovegrove and Snow for the jacket pocket and one of the other guides in the backpack for the rare or really difficult species.

William Collins Sons and Company is to be commended for its innovative approach to the publication of field guides. Its recent issues include field guides to dragonflies and to caterpillars of butterflies and moths in Britain and Europe. When will the major publishers of North American field guides follow the leader?—Eloise F. Potter

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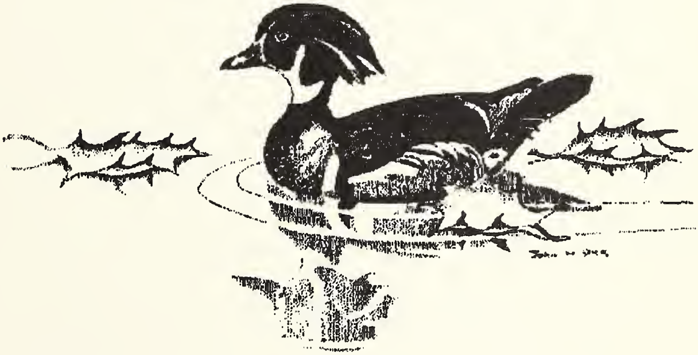

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OUR COVER— Many thanks to John Trott of McLean, Virginia for this photograph of a Saw-whet Owl.

General Field Notes

JUN [illegible] 1989
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Double-crested Cormorant and Anhinga Nesting in the Croatan National Forest

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Double-crested Cormorants (*Phalacrocorax auritus*) are extremely rare as breeding residents in North Carolina. They are common nesters inland in the northern U. S. and Canada, and along the eastern coast from Long Island, N. Y. northwards. There is a disjunct subspecies that breeds in Florida (*P. auritus floridanus*), and the few that breed in the mid-Atlantic Region are thought to belong to this subspecies (Clapp and Buckley, 1984).

Around the turn of the century, 120–160 pairs of Double-crested Cormorants nested at Great Lake, Craven County, in the Croatan National Forest (Pearson, Brimley and Brimley, 1959). That breeding population subsequently declined (Grant, 1970), and by the mid-1970's, Great Lake no longer supported any nesting Cormorants. However, there were about a dozen pairs nesting at Lake Ellis Simon, located 0.8 km southeast of Great Lake during this period (Clapp & Buckley, 1984; Fig. 1).

Post (1988) recently reported that Double-crested Cormorants are currently expanding their breeding range inland in the Southeast. In North

Carolina, a few pairs now breed at Jordan Lake in Chatham County (Chat 51:79). However, there has been no recent information about the status of the coastal breeding population in North Carolina. In this paper we document a recent increase in the size of the colony of nesting Double-crested Cormorants at Lake Ellis Simon.

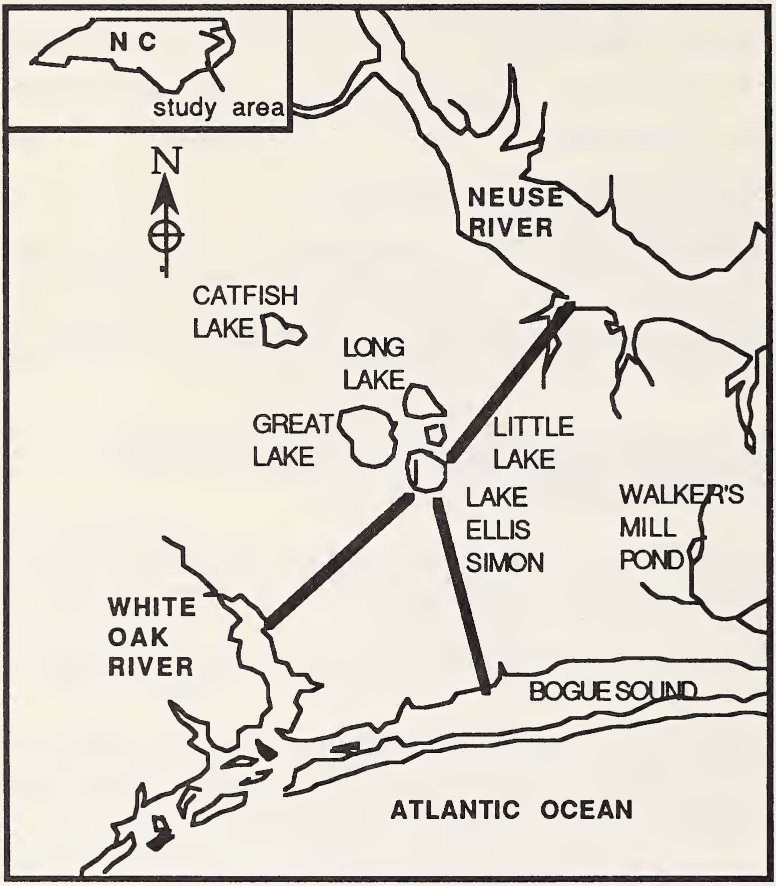
N C
study area
N
NEUSE RIVER
CATFISH LAKE
LONG LAKE
GREAT LAKE
LITTLE LAKE
LAKE ELLIS SIMON
WALKER'S MILL POND
WHITE OAK RIVER
BOGUE SOUND
ATLANTIC OCEAN

Figure 1. Map of the study area showing Lake Ellis Simon and the other lakes in the region of the Croatan National Forest. Shortest distances to sounds in which Double-crested Cormorants feed are indicated by dark lines.

In addition, we report on a growing population of breeding Anhingas (*Anhinga anhinga*) at Lake Ellis Simon. Anhingas are also rare breeders in North Carolina. They regularly breed from South Carolina to Florida, along the Gulf coast, and up the Mississippi Valley (A. O. U., 1957). In North

Carolina, Anhingas have been known to nest sporadically at Lake Ellis Simon and farther south in Brunswick County (Pearson, et al., 1959). Recently, Anhingas have nested at Lennon's Marsh in Robeson County (Chat 49:102), and at Jessup's Mill Pond in Cumberland County (Crutchfield and Whitfield, 1987). The nests at Lake Ellis Simon and in Cumberland County are the northernmost recorded for the species.

RECENT NESTING AT LAKE ELLIS SIMON

We had the opportunity to observe cormorants and Anhingas nesting at Lake Ellis Simon while studying the lake's Osprey (*Pandion haliaetus*) colony. The lake was visited at least once a week from March through August, 1983–1988. During this period, cormorants and Anhingas nested together in one large colony in a dense clump of live Bald Cypress (*Taxodium distichum*) in the middle of the lake. Nests were between 25 and 35 feet above water level, and the Anhinga nests were clumped together on the south side of the colony. Both Anhingas and cormorants were observed on the nests from late April/early May to July. Reproductive success appeared to be high as fledglings of both species were commonly observed on the lake.

Both species have increased in numbers during the observation period. In 1984, 32 cormorant nests were noted, whereas in 1987 there were 44 nests. After an absence of at least five years, Anhingas bred at Lake Ellis Simon in 1985, when three pairs nested there. In that same year, an additional three pairs also nested at Great Lake. In 1987, there were 12 Anhinga nests at Lake Ellis Simon. During the 1988 breeding season, there were 46 cormorant nests and 14 Anhinga nests in the colony. In 1988 we also located two abandoned nests away from the colony that were suspected to belong to Anhingas. Neither cormorants nor Anhingas nested at Great Lake in 1987 or 1988.

DISCUSSION

Anhingas were a common sight during the 1988 breeding season on lakes throughout the Croatan Forest region, and although additional nests were not located, we suspect that they may be nesting elsewhere in the vicinity. They were particularly common around Long Lake, 2.5 km north of Lake Ellis Simon, and around Walker's Mill Pond, near Newport, N.C. (Fig. 1).

It is interesting to note that cormorants nesting at Lake Ellis Simon actually do the majority of feeding in estuarine areas 10–15 km away (Fig. 1). Anhingas, preferring freshwater habitats, forage on the lakes.

It has been suggested that the rarity of nesting of both of these species in coastal North Carolina may be associated with the abundance of Fish Crows (*Corvus ossifragus*) in this region (Grant, 1970). There is a large population of Fish Crows around Lake Ellis Simon, and in 1988 the crows were observed feeding on Osprey eggs frequently. That numbers of Anhingas and cormorants on the lake are increasing despite the presence of Fish Crows suggests that other factors may be involved in limiting their distribution in North Carolina.

We would like to express our sincere appreciation to the members of Camp Bryan for permitting us to conduct research at Lake Ellis Simon. We thank G. San Julian, P. D. Doerr, and G. Grant for helpful reviews of previous drafts of this manuscript. Funding for our studies at Lake Ellis was provided by Weyerhaueser Corporation, Union Camp Corporation, The North Carolina Wildlife Federation, The Chapman Fund of the American Museum of Natural History, The Wake County Audubon society, the North Carolina State University Department of Zoology Harkema Fund, The Eastern Bird Banding Association and the Agricultural Research Service, North Carolina State University. Paper No. 11864 of the Journal Series of the North Carolina Agricultural Research Service, Raleigh, NC 27695–7601.

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Egg-turning by Northern Cardinal Prior to Onset of Incubation

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In mid-July 1983, a pair of Northern Cardinals (*Cardinalis cardinalis*) began visiting the *Pieris japonica* beside my house, which is 4.5 miles N of Zebulon, Wake County, N.C. On 28 July, I discovered a nest foundation consisting of a few dried pine needles. The location of the bush, about 3 m from the window beside my kitchen table, enabled me to watch the nest at frequent intervals throughout each day without disturbing the cardinals.

By 0830 h EDT on 29 July, a cup was taking shape; it was completed, but still unlined, when the female ceased building for the day at 1332 h. During the period from 1248 to 1332 h, the female arrived at the nest with building materials every 1 to 10 minutes. She gathered materials from an area across the driveway, about 20 m from the nest. At 1328 h a hatching-year bird followed her across the driveway. At 1332 h the adult female followed the male across the driveway, and the family party moved out of sight. The female did not roost on the nest that night.

On 30 July, the nest cup was well lined by 0725 h, the time of my first examination on that date. The female was not seen in the vicinity of the nest until 1123 h, when she may have added a bit of lining.

At 0900 h on 31 July, the nest contained one egg. Without removing it from the nest, I marked the egg longitudinally on the upper side with a Roman numeral I. At 1545 h the egg remained in its original position in the nest cup, but it had been rotated 180° so the mark was on the bottom rather than the top. The female did not roost on the nest the night after she laid the first egg.

At 0755 on 1 August, a second egg (marked II) was in the nest. The first egg was now positioned with the mark (I) facing the wall of the nest at the point nearest the egg. The female was not observed on, or in the vicinity of, the nest during the day, and she did not roost on the nest the night after she laid the second egg.

There were only two eggs in the nest at 0619 h on 2 August, and the female was not in attendance. At 0722 she was in the bush beside the nest, which still contained only two eggs. At 0723 h she was sitting on the nest, and she remained there until I flushed her at 0747 h to confirm the laying of the third egg. She remained near the nest while I marked the new egg with an X. Subsequent visits to the nest indicated that the three eggs were turned at least once daily, following the commencement of regular incubation, but each remained in its original position relative to the nest structure and relative to the other two eggs. A fourth egg was not laid. Judging by the female's association with a hatching-year bird and by the date of laying, the clutch was at least her second of the season. On 6 August the nest was empty, but the structure was still intact.

No doubt some movement of the first egg occurs accidentally as the female positions additional eggs in the nest. However, the 180° rotation of the lone cardinal egg during the first few hours after it was laid strongly suggests that the female returned to the nest prior to the laying of the second egg and turned the first one. If she incubated the egg at that time, she did not remain on the nest long enough to be detected by my frequent observationss some of them prolonged, scattered throughout the day. The same applies to all her other daytime visits to the nest prior to the laying of the third egg.

Although many references in the general literature indicate that the female pays no attention to the nest and the nesting site between layings, that misconception has been soundly disproved for nearly all passerines that have been well studied. Many species defend nests holding incomplete clutches (pers. obs.), and ornithologists are becoming increasingly aware of the considerable amount of brooding that takes place prior to onset of regular incubation. Regarding the Northern Cardinal, Hervey Brackbill (in Bent, 1968) reports: "Observations on two nests in Baltimore indicate that, although some sitting is done earlier, incubation at full intensity is not begun until the final egg has been laid. At an early May nest there was some incubation on the day the first egg was laid, but the bird did not roost on the nest until the second had been laid, and apparently did not begin steady sitting until the third was laid."

Nolan (1978:200) found Prairie Warblers (*Dendroica discolor*) on the nest from 0 to 16% of the time on the first day of laying, from 0 to 40% on the second day, and from 10 to 43% on the third day; but he did not mention any evidence of egg-turning prior to onset of regular incubation. Tending eggs during the daytime prior to onset of nighttime sitting has also been recorded in the Dusky Flycatcher (*Empidonax oberholseri*) by Morton and Pereyra (1985).

Roosting on the nest and some degree of nocturnal incubation have been noted in several species, including Traill's Flycatcher (*Empidonax traillii*; King, 1955), Acadian Flycatcher (*Empidonax virescens*; Mumford, 1964), Western Flycatcher (*Empidonax difficilis*; Davis, Fisler and Davis, 1963), Eastern Phoebe (*Sayornis phoebe*; Mueller, Mueller and Meyer, 1982), and Blue Tit (*Parus caeruleus*; Haftorn and Reinertsen, 1985).

Morton and Pereyra (1985) noted that sitting on the nest in the daytime prior to completion of the clutch does not maintain the eggs for long periods at temperatures necessary for embryonic growth. Therefore, they suggested that laying-period attentiveness protects eggs from overheating caused by solar radiation when the vegetative canopy may not be fully developed. Haftorn (1978) suggested that nighttime attentiveness during the laying period might protect embryos from low temperatures. However, eggs are not always covered when they are exposed to direct, midday sunlight; and they are often left uncovered during cold weather. To the best of my knowledge, no researcher has been able to correlate laying-period attentiveness satisfactorily with any environmental condition.

There are many references in the general literature to the fact that incubating birds turn their eggs after the onset of incubation. Drent (1973:263) expressed the opinion that counteracting temperature gradients existing in the nest cannot be the only function of egg-turning. He noted that egg movement appears to be critical during the first half of the incubation period and that this behavior apparently reduces the "incidence of premature adhesions involving the extraembryonic membranes." Such adhesions can disrupt the uptake of the egg white and cause other difficulties that may prevent successful hatching. Nonetheless, some birds (e.g. those that bury their eggs) manage to hatch their young successfully without benefit of egg-turning.

Drent (1973) did not mention the occurrence of, or the need for, egg-turning prior to onset of regular incubation. However, my report of such behavior should not be surprising in view of the abundant evidence of sitting on eggs during the laying period. Future studies may reveal that egg-turning is a routine activity from the very first day of laying.

The more we learn from studies of avian behavior, the more we realize that all birds of a given species are not destined to do everything exactly the same way. For example, Conner, Anderson and Dickson (1986) reported that song complexity in the Northern Cardinal is negatively related to fledging success. Compared with experienced males, they suggested, young male cardinals "may use longer, highly complex songs when first establishing a territory. In subsequent breeding seasons, age or prior ownership of a particular territory may permit the male to put 'less effort' into song (complexity) and allow more effort for nest defense and care of young." Is it possible that the experienced female turns her eggs and slips quickly away, whereas the inexperienced female spends quite a bit of time at the nest when she turns her eggs? Is it possible that sitting on the eggs without effectively incubating them stimulates development of the brood patch or in some other way prepares the inexperienced female for regular incubation?

All matters related to care of eggs during the laying period are poorly documented and poorly understood. Future studies of the nesting cycle should attempt to document egg-turning and brooding prior to onset of regular incubation and correlate those activities with the age (nesting experience) of the bird.

Acknowledgements. Gilbert S. Grant discussed the possible significance of my observations with me and provided a copy of *Breeding Biology of Birds*. Douglas B. McNair made helpful comments on the manuscript and brought to my attention several relevant papers that I had overlooked.

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First Record of a Pacific Loon from North Carolina

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On 15 May 1987, John Fussell, Keith Archibald, Larry Crawford and I observed a small loon swimming near a Common Loon (*Gavia immer*), both about 100 m off Cape Hatteras Point, near Buxton, Dare County, N.C. After examination through a 50 X Questar, I identified the bird as a "black-throated" type loon (either Arctic Loon, *G. arctica* or Pacific Loon, *G. pacifica*). We studied the bird through a variety of scopes from 1045 h to 1115 h when we were joined by Ricky Davis, Harry LeGrand and Mark Oberle. All seven of us watched the loon until 1245 h when it took off, circled once and flew away to the north.

Compared with several Common Loons in the vicinity, the bird was notably smaller, the head was more rounded and it had a smaller, more dagger-like bill which was straight (Fig. 1). The bird was molting into breeding plumage. The nape and rear half of the crown were pale blond grading to much darker on the cheek and sides of the neck (Fig. 2). The sides of the neck from the level of the malar area to the waterline were finely striped in black and white. The chin and foreneck were entirely white except for a narrow chinstrap of brownish feathers. The scapulars were blackish with several rows of square, white spots. The flanks were uniformly dark to the waterline.

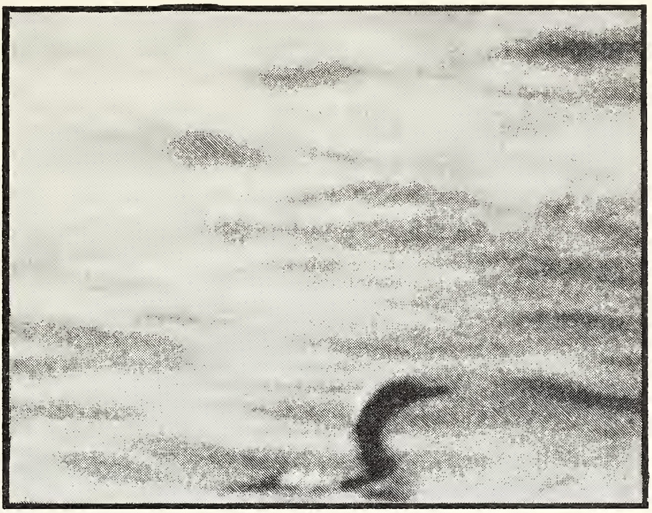

Figure 1. Pacific Loon off Cape Hatteras, Dare County on 15 May 1987. Note the small, straight bill, checkered scapulars and dark flanks (area at waterline in front of the tail; the white flank of *G. a. arctica* or *G. a. viridigularis* in this photograph would appear as a white dome about the same size as the scapular spots). Photo by Mark Oberle.

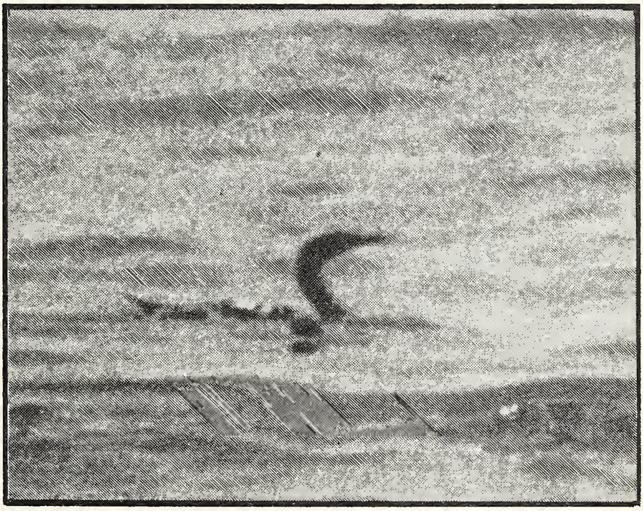

Figure 2. Photo of Pacific Loon off Cape Hatteras showing the pale nape, straight, slender bill and white-checkered scapulars. Photo by Mark Oberle.

Until the recent taxonomic decision to split the "Arctic" loons into two species (American Ornithologists' Union, 1985), differentiation from Common and Red-throated (*G. stellata*) loons was relatively simple. The combination of small size, checkered back and small, straight bill alone would be sufficient. However, separation of Pacific Loon (North America) from either of the two races of Arctic Loon (*G. a. arctica* of Europe and *G. a. viridigularis* of Asia and NW Alaska) is more difficult. Harrison (1983, 1987) and Appleby, Madge and Mullarney (1986) indicated that the Arctic Loon (both subspecies) is separable from the Pacific Loon by the presence of a prominent white flank patch. Paul Lehman (pers. comm.) noted that the presence of a chin strap and thin line separating the undertail coverts from the belly ("cloacal band") are indicative of Pacific Loon. The Asian form (*viridigularis*) is larger than the others and has a green structural color in the throat in breeding plumage while *pacifica* and *arctica* have purple (Storer, 1978: Johnsgaard, 1987). Unfortunately, neither of these features were of use in identification of the present individual. Palmer (1962) noted that in 80% of Arctic Loons (*arctica*) he examined, the breeding plumaged nape color was notably darker than that of Pacific. This distinction is further supported by Cramp and Simmons (1977), Harrison (1983, 1987), and Lehman (pers. comm.).

All of the field marks seen on the loon at Cape Hatteras indicate Pacific Loon and collectively eliminate both forms of Arctic. First, the bird clearly had dark flanks. The brownish-black color on the sides of the body extended from the lower edge of the wing to the waterline all the way from the chest to the undertail coverts (Fig. 2). Second, the nape was notably pale, being comparable to the paler naped Pacific Loons I have seen elsewhere. Several weeks later, LeGrand and Davis (pers. comm.) examined a large number of Pacific Loons in Oregon and confirmed that the nape color of the Cape Hatteras bird was similar to that of the Pacific Loons they saw. The color and lightness were comparable to the Pacific Loon photographed in Farrand (1983) and clearly not like the paintings of Arctic Loon illustrated in Heinzel, Fitter and Parslow (1974) and Cramp and Simmons (1977). Finally, the bird exhibited the dark chinstrap that is characteristic of *pacifica*.

Lehman (pers. comm.) has further noted that all of the recent sightings (and specimens) from the east coast are of Pacific Loon and that a report of Arctic Loon from North Carolina would constitute a first western hemisphere record outside arctic northwest North America. Bent (1919) stated that all the specimens from eastern North America he examined were of *pacifica* and indicated that *arctica* was unknown from the western hemisphere.

There is a single previous report of "Arctic Loon" (referring to the name used prior to taxonomic separation) from North Carolina (Am. Birds 28:626–628). However, because this sighting was reported without documentation, the absence of a description, particularly in light of the taxonomic separation, causes this report to be of limited use. Therefore, although "Arctic" (=Pacific) Loon is listed under Provisional II status on the Checklist of North Carolina Birds (Lee, 1984), the current Cape Hatteras sighting constitutes a first detailed record of Pacific Loon (G. *pacifica*) from North Carolina. There are only two other reports of "Arctic" Loon from the area, one from Virginia (Amer. Birds 30:823) and one from Georgia (Aud. Field Notes 17:317). As with the previous North Carolina report, both these reports lacked descriptions and were listed as "probables". However, there are at least five records of *pacifica* from Florida (Aud. Field Notes/Amer. Birds regional reports, L. Alexander, pers. comm.).

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UNIQUE SHAPE OF A BACHMAN'S SPARROW NEST

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Bachman's Sparrow (*Aimophila aestivalis*) nests are placed on the ground and are usually roofed-over, as in all nests that I have found in Louisiana, North Carolina, and Maryland (Fig. 1).

A nest with four eggs that I located in the Croatan National Forest on 21 May 1987 (Chat 52:2-3) had a shelf or platform leading to the interior of the nest (Fig. 2). Such a shelf, I believe, has not been described in the literature.

The length of the nest from front to back was 18.0 cm., with the cup occupying 8.5 cm. of that distance; the height was 11.0 cm.; the shelf 7.0 cm. in length. The nest weighed 16.7 grams. A total of 1035 pieces of plant material was used in its construction. Dried stems and branchlets of Panic Grass (*Panicum* sp.) were the principal materials. Others used included

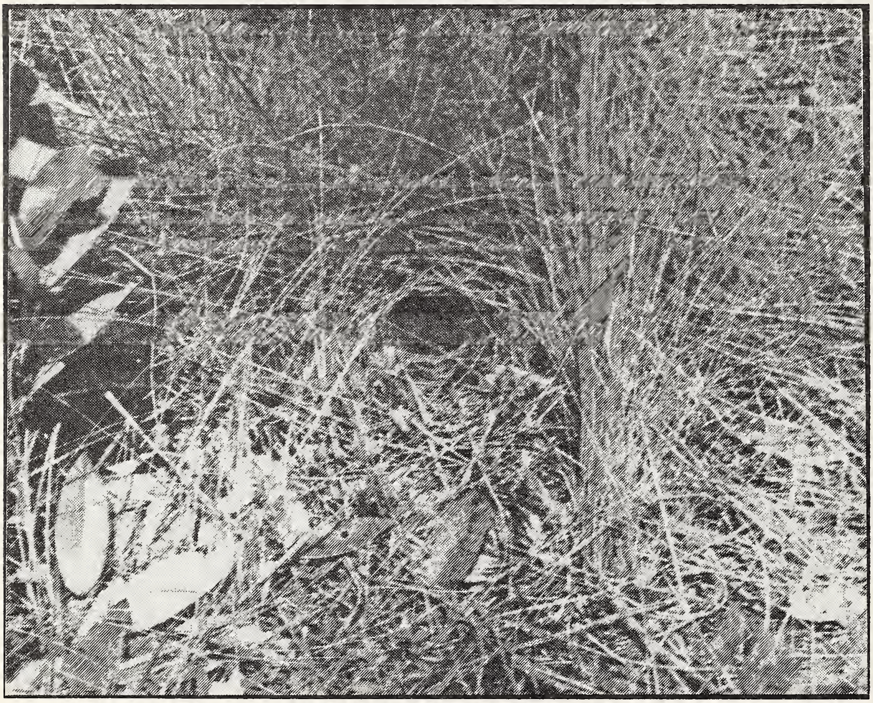

Figure 1. Nest of Bachman's Sparrow, Croatan National Forest, North Carolina, May 1987. Nest under tussock of Wiregrass (*Aristida stricta*), at base of clump of Blueberry (*Vaccinium* sp.) plants.

Bluestem (*Andropogon* sp.), Wiregrass (*Aristida stricta*), and Long-leaf Pine (*Pinus palustris*).

Nests that I found in the Kisatchie National Forest in southwestern Louisiana were also constructed mostly of Panic Grass.

I thank David A. Coon for the sketch of the Bachman's Sparrow nest and Gorman M. Bond and D. B. McNair for reviewing the manuscript.

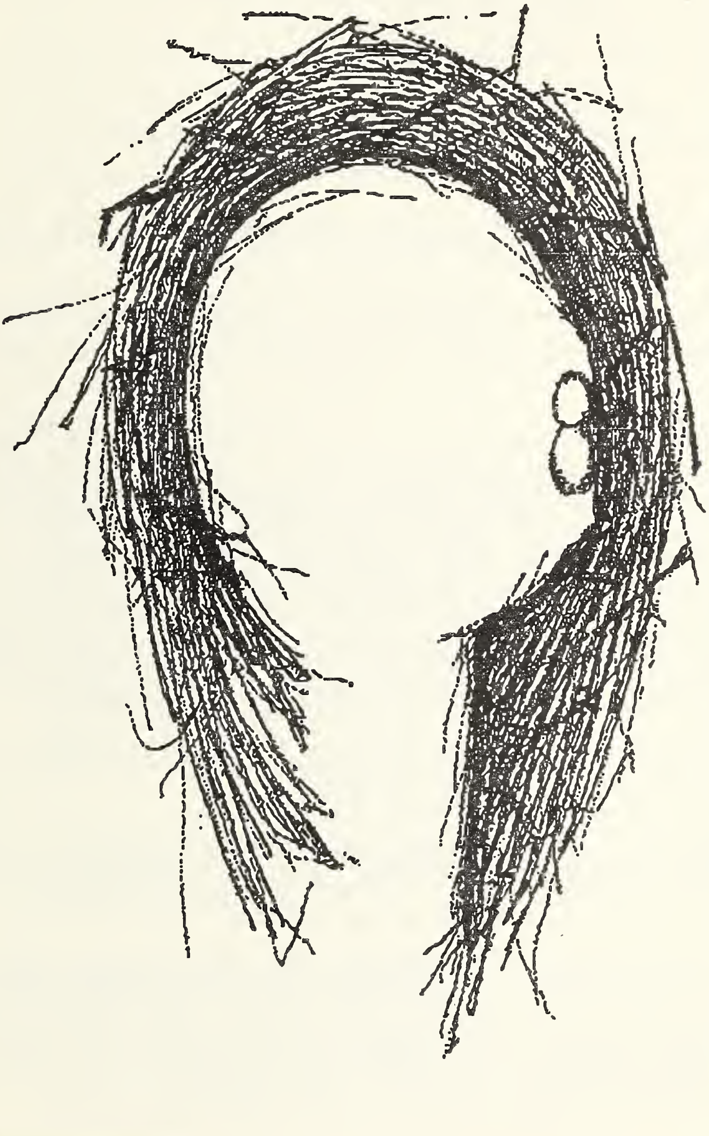

Figure 2. Two-thirds life-size sketch of Bachman's Sparrow nest, Croatan National Forest, N.C. May 1987. Sketch by David A. Coon.

CBC Rare Bird Alert
(704) 332-BIRD

BRIEFS FOR THE FILES

HARRY E. LeGRAND, JR.

(all dates Winter 1987-88 unless otherwise indicated;
CBC = Christmas Bird Count)

RED-THROATED LOON: Robin Carter noted a rare inland individual on Lake Monticello in Fairfield County, S.C., on 16 January.

HORNED GREBE: A notable inland count of 127 grebes was made by Peter Stangel on Par Pond at the Savannah River Plant, S.C., on 5 February.

RED-NECKED GREBE: Always noteworthy in the Carolinas, one was studied by Derek Carrigan on Lake James, N.C., at the Linville River access area on 12 April 1987. [Carrigan completed a "Verification of an Extraordinary Sight Record" form that has been deposited at the N.C. State Museum.—HEL] Another Red-necked was inland at Par Pond on the Savannah River Plant on 27 January, as seen by Chris Depkin and party. Along the coast, individuals were also seen at Kure Beach, N.C., on 1 and 2 January by John Wright, Ricky Davis, and Bob Lewis; at Rodanthe, N.C., on 18 February by John Fussell; and near Cape Island, S.C., on 20 December by Perry Nugent.

EARED GREBE: Perry Nugent observed a very rare bird for the Carolinas on a pond at Cape Island, S.C., on 20 December.

NORTHERN FULMAR: Apparently the first report of a fulmar seen in flight from the North Carolina shore was one noted over the surf at Carolina Beach on 27 February by Eric Dean.

MANX SHEARWATER: Taylor Piephoff and David Wright carefully described a Manx seen flying over the surf at Cape Hatteras point, N.C., on 30 January. [The details appear to rule out the similar-looking Audubon's Shearwater, which is common in the warmer months in the Gulf Stream but which has been seen and collected in winter off North Carolina in the past few years.—HEL]

AMERICAN WHITE PELICAN: One apparently wintered in the Hatteras Inlet, N.C., vicinity, as it was reported by Carl Perry on 30 December and on 30 January by Merrill Lynch and party.

GREAT CORMORANT: Perhaps a record count was 22 birds seen on 10 February at Fort Fisher, N.C., by Sam Cooper. Cooper also had a good count of twelve farther north at Masonboro Inlet on 28 January. Several spent the winter at Oregon Inlet, N.C., as seen by John Fussell and others, and one was at Fort Macon, N.C., on 22 December (Fussell). In South Carolina, three were seen at their regular wintering locale at Huntington Beach State Park on 13 December by Robin Carter and Caroline Eastman.

DOUBLE-CRESTED CORMORANT: Thousands of cormorants regularly winter on islands inside Hatteras Inlet, but Paul Sykes' estimate of 125,000 birds on 2 January was truly amazing.

ANHINGA: Rare in central South Carolina in winter was one in a pond near the Wateree River in Kershaw County on 20 February (Robin Carter, Caroline Eastman).

GREAT EGRET: Notable in winter for inland North Carolina were individuals in eastern Moore County on 20 December (Tom Howard), at Jordan Lake on 27 December (Maurice Graves, Doug Shadwick), near Roanoke Rapids on 27 December (Frank Enders), and at Fayetteville from 26 January to 6 February (Don and Kathryn McCoy).

GREEN-BACKED HERON: Kitty Kosh observed one at Greenfield Lake in Wilmington, N.C., throughout the winter. Inland, late herons were found near Southern Pines, N.C., on 20 December (Charlotte Gantz) and at Jordan Lake on 3 January (Steve Graves, Doug Shadwick).

WOOD STORK: Unusual at any time on the North Carolina Outer Banks, an immature was surprising on several dates in late December at Cape Hatteras point, as first noted by Marcia Lyons and later seen by Mike Tove and others.

FULVOUS WHISTLING-DUCK: Perry Nugent observed two birds near McClellanville, S.C., on 20 December.

TUNDRA SWAN: This species is wintering in the Carolinas in increasing numbers, and inland reports are also more numerous than earlier in the decade. One was seen at Lake Townsend near Greensboro, N.C., on 3 December (Herb Hendrickson), three were noted on 12 January at Goldsboro, N.C. (Eric Dean), two to three were seen near Fayetteville from 27 January to 29 February (Philip Crutchfield), and several hundred were again present in the Halifax-Tillery vicinity of Halifax and Northampton counties, N.C., all winter (Merrill Lynch et al.). Notable in South Carolina were eight at Santee National Wildlife Refuge on 24 February (Robin Carter) and two at Bear Island Wildlife Management Area in Colleton County on 6 February (Carter, Dennis Forsythe, et al.).

MUTE SWAN: An adult was present at the Goldsboro waste treatment ponds from late October to 12 January, as noted by Eric Dean and others. Three adults were also seen near Pineville, N.C., from late October to late December by Taylor Piephoff, David Wright, and others. [The swans at these locations apparently arrived following cold fronts, and none of them were previously known to occur at the sites (i.e., not obviously resident birds). The feral population on the mid-Atlantic coast ranges south to approximately Chincoteague, Virginia; birds from this population would be "countable". Unfortunately, it is impossible in many cases to determine the origin of the Mute Swans seen in the Carolinas, as many Mutes are present (as exotic, resident individuals) at parks and other places in cities and towns.—HEL]

GREATER WHITE-FRONTED GOOSE: At Santee National Wildlife Refuge, on Lake Marion, S.C., one was noted by Robin Carter and Caroline Eastman on 10 December and 1 January.

SNOW GOOSE: A blue-phase goose was seen on 10 January in northern Mecklenburg County, N.C., by David Wright. White-phase individuals were notable inland near Whitestone, Spartanburg County, S.C., from 31 January to 6 February 1987 (Matthew Campbell) and at York, S.C., on 11 January (Bill Hilton, Jr.). An injured bird was seen on 20 December at Whispering Pines, Moore County, N.C., by Roberta Davis, who reported up to 12 birds there earlier in the winter.

BRANT: South of the usual winter range were three brants seen near Fort Fisher, N.C., on 2 January by Ricky Davis.

GREEN-WINGED (EURASIAN) TEAL: Apparently a first inland record for the Carolinas was a male seen by Eric Dean at Goldsboro from 10 February to 7 March. Along the North Carolina Outer Banks were two males seen at Pea Island on 31 January by Merrill Lynch, Vaughn Morrison, and party, as well as another male on the same day at Bodie Island, as observed by Mike Tove.

NORTHERN SHOVELER: Simon Thompson noted a female at Columbus, N.C., on 19 December, and four were also of interest near Raleigh, N.C., on 23 January (Harry LeGrand).

EURASIAN WIGEON: Philip Crutchfield and party reported a female in northeastern Pamlico County, N.C., on 12 February. [Good details accompanied the report, but observers should be aware of the difficulty in identifying females of this species and should be very cautious when reporting female Eurasians.—HEL] Bob Holmes and Bill Bell noted a male for the third straight winter at an impoundment near Otway, Carteret County, N.C., this season on 20 December.

REDHEAD: A male was scarce in the foothills on Lake James, N.C., on 14 February (Derek Carrigan).

GREATER SCAUP: Robert Ruiz noted a rare mountain individual on Lake Tomahawk at Black Mountain, N.C., on 7 March.

COMMON EIDER: A flock of five to six birds spent the winter at Oregon Inlet, as seen by John Fussell and many other birders. Three females and three immature males were present. Another immature male was seen at Rodanthe, N.C., on 31 December, also by John Fussell.

KING EIDER: Wintering with the Common Eiders at Oregon Inlet were a maximum of one immature male and two female King Eiders, as seen by John Fussell and others.

HARLEQUIN DUCK: An outstanding count was five (an immature male and four females) seen on a rock jetty at Masonboro Inlet, N.C., on 17 February, as noted by Sam Cooper. Cooper reported two birds there, both immature males different from the earlier male, on 21 February. Other records, all in North Carolina, were a female feeding under the Oregon Inlet bridge from 13 January to the end of February (John Fussell et al.), a female at Fort Macon State Park on 20 December (John Wright), and two immature males at Fort Fisher on 28 December (Greg Massey, Maurice Barnhill).

OLDSQUAW: A female was seen on a pond on the Columbia, S.C., CBC on 19 December (Jim Beatty, Glenn Smith, John Cely, Tom Hankins).

WHITE-WINGED SCOTER: Rather rare in the Charleston, S.C., area was one seen on the Cooper River on 30 January by Robin Carter and Caroline Eastman. Two were found inland at Goldsboro on 23 January by Eric Dean.

COMMON GOLDENEYE: Robert Ruiz noted a female at Swannanoa, N.C., on 5 December, and a good inland count of eight was made by Ricky Davis at Jordan Lake on 22 January.

BUFFLEHEAD: Philip Crutchfield had an excellent count of approximately 3000 birds in Mouse Harbor, Pamlico County, N.C., on 12 February.

COMMON MERGANSER: Two males were seen by Tommy Graham at Cape Romain National Wildlife Refuge, S.C., on 20 December, two males were noted by Dennis Forsythe and Donna Clark at Folly Beach, S.C., on 28 December, and two males were also seen by Caroline Eastman and Robin Carter in Charleston harbor on 30 January. Besides several records for Jordan Lake, individuals were locally rare in North Carolina in eastern Moore County on 20 December (Tom Howard) and on the Neuse River at Minnesott Beach on 7 February and 20 March (John Fussell).

BLACK VULTURE: Scarce in the mountains were four seen near the Biltmore Estate in Buncombe County, N.C., on 22 December by Robert Ruiz.

NORTHERN GOSHAWK: Gail Whitehurst saw an adult in Asheville, N.C., on 19 December. She noted it perched and also being chased by American Crows.

BROAD-WINGED HAWK: Convincing details were provided for an adult bird observed at Buxton, N.C., on 30 December by Paul Sykes and David Hughes. This is the second occasion in which this species has been found on the Cape Hatteras Christmas Bird Count, with the first sighting being of an immature (Chat 49:82).

ROUGH-LEGGED HAWK: Very rare in South Carolina was a light phase bird seen at the spoil site along the Savannah River near Savannah, Georgia. Robin Carter, Dennis Forsythe, and Donna Clark noted it on 17 January. [Excellent details were provided.—HEL]

GOLDEN EAGLE: The only winter sighting was of one observed in December by Larry Ditto at the western end of Lake Mattamuskeet, N.C.

MERLIN: Rare inland in winter was one noted by Bill Brokaw on 26 December along the Catawba River west of Charlotte, N.C.

YELLOW RAIL: John Cely, Robin Carter, and Caroline Eastman were able to elicit calling of two birds at one grassy Carolina bay, and three at another, on 9 December in eastern Richland County, S.C. They clicked rocks, after dark, to imitate the call and get the rails to respond; however, the birds were not seen. [Carolina birders ought to give this method a try. Find a suitable looking fresh or brackish marsh or wet field during the day, and return in the evening to try a tape recording or rock clicking. Clicking of rocks does elicit calling by the rails on their breeding grounds, but few people have apparently attempted to try this method for finding the rails in the non-breeding season.—HEL]

KING RAIL: John Fussell had a good count of 30 Kings at Knotts Island, N.C., on 16 January.

VIRGINIA RAIL: This species likely winters regularly in some marshes inland to the Piedmont. One was heard calling on 26 December in northern York County, S.C., by Flo Cobey and others.

SORA: Eric Dean noted the species on many occasions all winter at the Goldsboro waste treatment ponds, and Robin Carter saw and heard one at a cattail marsh at Lake Edgar Brown in Barnwell County, S.C., on 29 February. This species also winters sparingly over inland parts of the Carolinas, but apparently in smaller numbers than the previous species.

COMMON MOORHEN: An excellent inland winter count was of 60 that spent the winter at Goldsboro, as noted by Eric Dean.

SANDHILL CRANE: There were two notable records for North Carolina, where a very rare visitor. Three were present in a cornfield west of Greensboro from 5 December to 7 January, as seen by Herb Hendrickson and many other birders. The crane that appeared near Nebraska, Hyde County, in the fall remained all winter and was last reported on 13 March by Harry LeGrand and Ricky Davis.

BLACK-BELLIED PLOVER: Seldom found in winter in the piedmont, though almost certainly just a late migrant, was one seen at Falls Lake east of Durham, N.C., on 2 December by Ricky Davis.

WILSON'S PLOVER: Late in departing were three seen on 20 December at Beaufort, N.C., by Mike Tove.

BLACK-NECKED STILT: Possibly the first far-inland record for North Carolina, and perhaps the first also for mid-winter, was one that was present at a sewer plant pond at Lillington, N.C., from 3 to 5 January, as noted by Steve Everhart and others.

LESSER YELLOWLEGS: Rare inland in winter were individuals seen at Goldsboro on 1 December by Eric Dean and at Gaston, N.C., from 24 to 27 December by Merrill Lynch.

SPOTTED SANDPIPER: Two were rather late on 20 December on the Morehead City, N.C., CBC, as seen by Bill Brokaw and Ricky Davis.

WHIMBREL: Jeremy Nance observed one north of its winter range at Oregon Inlet, N.C., on 29 December.

LONG-BILLED CURLEW: One to two spent the winter at Fort Fisher, N.C. (Ricky Davis, Kitty Kosh), and three were seen at Cape Romain refuge, S.C., on 20 December by Tommy Graham.

SANDERLING: Seldom found inland in winter was one at Santee National Wildlife Refuge on 10 December (Robin Carter).

LEAST SANDPIPER: Tom Howard and Bob Davies noted two at Woodlake in eastern Moore County, N.C., on 20 December. Others inland were six at Columbia, S.C., on 15 December (Robin Carter) and one at Fayetteville on 29 February (Philip Crutchfield).

WHITE-RUMPED SANDPIPER: Harry LeGrand saw and heard one on 13 December at Jordan Lake, possibly a first winter record for North Carolina. The squeaky call and the white rump were noted when the bird was flushed.

PECTORAL SANDPIPER: This species regularly occurs inland until November; thus, one at Falls Lake on 2 December (Ricky Davis) was not overly late in departing.

PURPLE SANDPIPER: Seldom found on the Outer Banks, one to two were present much of the winter on bridge supports at Oregon Inlet (John Fussell et al.), and Sam Cooper reported a good count of 15 on 21 February at a jetty at Masonboro Inlet, where most of the Purples in North Carolina spend the winter.

LONG-BILLED DOWITCHER: Dennis Forsythe noted four at Magnolia Gardens near Charleston on 16 January. A very good count for southeastern North Carolina was 50+ seen on 4 January at rain puddles on the University of North Carolina at Wilmington campus (Sam Cooper).

RED-NECKED PHALAROPE: Most unusual in winter was a male, with a remnant of a red stripe down the back of the neck, seen on the

Bodie Island lighthouse pond on 29 December by Maurice Barnhill and James Tate.

RED PHALAROPE: Seven were seen off Morehead City on 14 February by Derb Carter, Harry LeGrand, and Mike Tove.

LITTLE GULL: John Fussell and others observed one adult at Rodanthe, N.C., on 23 and 24 January, four birds at Cape Hatteras on 30 January, and two birds there on 31 January. Two adults were seen at Corolla, N.C., on 30 January by Harry LeGrand, Robert Hader, Jeannine Angerman, and party.

COMMON BLACK-HEADED GULL: Clyde Atkins found an immature at a borrow pit in Holden Beach, N.C., on 10 December, and it was seen by many birders until at least 23 January. Other immatures were seen in North Carolina at Hatteras on 30 December (Bob Lewis, Ken Knapp) and near Southport from 4 to 10 February (Chris Benedict, Bill Brokaw).

BONAPARTE'S GULL: Notable inland totals were 150 on the Charlotte CBC on 26 December (fide Paul Hart) and 300+ on 5 January at Goldsboro (Eric Dean).

RING-BILLED GULL: A count of 200+ was noteworthy for the foothills at Lake Lure, N.C., on 13 February, as seen by Simon Thompson.

HERRING GULL: Normally rather uncommon on inland lakes, surprising totals were 82 at Falls Lake on 2 December (Ricky Davis) and 20 on a few dates in December and early January at Lake Townsend near Greensboro (Herb Hendrickson).

ICELAND GULL: An immature was seen at Morehead City on 20 December by Mike Tove and Derb Carter, and an immature, believed to be a different individual, was seen at this town on 14 February by Tove, Carter, and Harry LeGrand. John Fussell observed a subadult at Hatteras on 10 February.

LESSER BLACK-BACKED GULL: In addition to many records from the Outer Banks, one adult spent the entire winter at a pond at Carolina Beach, N.C., as reported by Kitty Kosh and others.

GLAUCOUS GULL: Individuals were seen at two locations on the Morehead City CBC on 20 December by Eric Dean and Wayne Irvin. John Fussell observed individuals at Hatteras on 10 December and at Ocracoke on 1 January. Ricky Davis noted an adult, rarely seen in the Carolinas, in flight at the Neuse River at Oriental, N.C., on 31 December.

GREAT BLACK-BACKED GULL: Casual inland were three seen on Roanoke Rapids Lake, N.C., on 27 December by Wayne Irvin, Bob Odear, and Randy Yelverton; and three others were noted by John Wright at Greenville, N.C., on 10 January.

BLACK-LEGGED KITTIWAKE: Single adults were noted from shore at Pine Knoll Shores, N.C., on 20 December (Eric Dean) and offshore of Beaufort Inlet, N.C., on 14 February (Harry LeGrand, Mike Tove).

BLACK SKIMMER: Allen Bryan and Eric Dean saw a skimmer "inland" on Pamlico Sound near Gull Rock, N.C., on 28 December.

DOVEKIE: Alcid records in the Carolinas are always noteworthy. Single Dovekies were seen by Eric Dean, Mike Tove, and Derb Carter flying past a pier at Atlantic Beach, N.C., on 20 December; and Tove saw another from shore at Pea Island, N.C., on 29 December. John Wright found a dead individual on the beach at Salvo, N.C., on 30 January. An unusually large flock of eight was seen resting in the surf near Horned Grebes and Bonaparte's Gulls at Cape Hatteras by Herb Hendrickson and Peggy Ferebee on 5 March.

THICK-BILLED MURRE: Very rare was one seen about 3.5 miles off Masonboro Island, N.C., on 19 December by Greg Massey and Jim Pearson. The slender, pointed bill was noted, and "white appeared to extend only below the eye" (Massey).

RAZORBILL: Carl Perry found an alive, but partly oiled, Razorbill on the beach at Cape Hatteras on 31 December, and Sam Cooper saw an adult about 5 miles off Masonboro Inlet, N.C., on 29 January.

COMMON GROUND-DOVE: A good count of at least eight doves was made by Robin Carter at a spoil pond near Savannah on 17 January.

LONG-EARED OWL: Alan Boynton heard one giving a barking call in response to a Great Horned Owl tape recording at Bluff Mountain, Ashe County, N.C., on 16 February. [Although I have seen this species in New Jersey, I have no familiarity whatsoever with the varied call notes of Long-eareds, and thus I feel unable to judge whether vocal reports of this species in the Carolinas are correct. Certainly, observers should make every attempt possible to visually confirm owls calling that are believed to be Long-eareds.—HEL]

SHORT-EARED OWL: One was seen in midday at Occoneechee Neck in Northampton County, N.C., on 27 December (John Wright).

NORTHERN SAW-WHET OWL: John Fussell found a road-killed bird on NC 345 between Manteo and Wanchese, N.C., on 15 February.

RUBY-THROATED (?) HUMMINGBIRD: One bird, not an adult male, was present at a feeder in Marshallberg, Carteret County, N.C., for much of the winter. It was seen by Dorothy and Roger Foy, John Fussell, and other birders. One red feather was present on the throat, apparently indicating that the bird was a one-year old male Ruby-throated. Fussell reported that other Archilochus hummingbirds were present in that county in winter at Atlantic and at Harkers Island, but specific identity was not known for these individuals. Steve Thomas found a female Archilochus hummingbird dead in the snow on 11 January at Surfside Beach, S.C. [The hummingbird has not yet been examined by experts to determine its identity, as of this writing.—HEL]

RUFOUS HUMMINGBIRD: An immature male Rufous, and a female Selasphorus hummingbird (almost certainly of this species) were present at the feeders of Clark Cockerham in Raleigh from December into early January, with the female remaining into March. Robert Hader, Mike Tove, Merrill Lynch, and others verified the report. Another immature male was seen by Dorothy Foy et al. at a feeder in Beaufort County, N.C., from 30 January into March. Peter Worthington reported that he and others saw a female Selasphorus, with the tail feathers apparently of equal width (in-dicating Rufous), at a feeder in Greer, S.C. The bird, present most of the winter into March, was videotaped and closely studied on the tape. Worthington also reported an immature male Rufous present in nearby Greenville, in December to early January; it was also videotaped.

HORNED LARK: A small flock was seen by Alistaire Smith near the Congaree River in Richland County, S.C., in late February. Bruce Mack noted two birds near Elloree, S.C., and two more near Fort Motte, S.C., on 28 February.

TREE SWALLOW: Very rare in winter away from tidewater areas was one seen by Frank Enders in central Halifax County, N.C., on 27 Dec.

FISH CROW: Merrill Lynch reported that he saw the species regularly all winter in the Halifax County, N.C., towns of Roanoke Rapids, Halifax, and Ringwood.

GRAY CATBIRD: Robin Carter saw one on 13 February in Fairfield County, S.C. Though catbirds are found on many piedmont CBC's, the birds are generally stragglers, and records in that province in Feb-ruary are quite unusual.

LOGGERHEAD SHRIKE: A very good count of 21 birds, in 52 car miles of driving east of Columbia, was made by Robin Carter on 19 December. This species continues on a gradual decline in the Carolinas, particularly noticeable in the breeding season.

SOLITARY VIREO: This species appears to be increasing as a winter resident in the lower piedmont, at least through the CBC period. One was notable in midwinter on 24 January at Jordan Lake (Harry LeGrand).

ORANGE-CROWNED WARBLER: Heathy Walker saw one in her yard in Charlotte, N.C., from 18 to 29 February, and another was seen near the airport at Charlotte on 26 December by Paul Hart. Well inland in South Carolina was one seen by Robin Carter in Chester County on 26 January.

NORTHERN PARULA: Very rare in North Carolina in winter were single birds seen on 19 December by Kitty Kosh in Wilmington and on 2 January by Sam Cooper at Southport.

YELLOW WARBLER: Seldom reported in the Carolinas in winter, a male was carefully studied on 14 January at Barnwell, S.C., by Peter Stangel. [Full details were provided.—HEL]

YELLOW-THROATED WARBLER: One was at Karl Pace's feeder at Gloucester, Carteret County, N.C., all winter.

PRAIRIE WARBLER: North of the usual winter range was one seen by Harry LeGrand at Buxton, N.C., on 30 December.

OVENBIRD: This species was hardly ever seen in winter in North Carolina until the past few years; however, the species is perhaps regular in maritime forests, at least into the first half of the season. This winter included sightings of four birds in Buxton woods on 30 December (Paul Sykes, David Hughes), one near Fort Fisher on 2 January (Ricky Davis), one near Avon on 13 January (John Fussell), and one near Manteo on 28 January (Fussell).

NORTHERN WATERTHRUSH: Very rare in winter were South Carolina sightings by Nancy and Harry Ober at a puddle at Santee National

Wildlife Refuge on 10 January, and by Dennis Forsythe and Donna Clark at Magnolia Gardens on 16 January.

WILSON'S WARBLER: Adult males were noteworthy at Occoneechee Neck in Northampton County, N.C., on 27 December (Harry LeGrand), on the Greensboro CBC on 27 December (Henry and Elizabeth Link, Barbara Smith), and at Wilmington on 20 December

YELLOW-BREASTED CHAT: Larry Crawford saw one on the Morehead City CBC on 20 December, and John Fussell noted that another spent the winter in his yard in that town.

WESTERN TANAGER: One was a good find by Margaret Wagner and party on the Chapel Hill, N.C., CBC on 27 December. A faint reddish area was present over the head, indicating a male.

INDIGO BUNTING: Out of season was one seen near Southport, N.C., on 2 January by Bill Brokaw.

PAINTED BUNTING: Four birds, including two adult males, were present at Edward Howland's feeders in Beaufort, N.C., during the winter, at least through early February. A female or an immature male was a feeder visitor from late December to early January in Morehead City (Joyce Taylor), and an adult male visited John Fussell's feeder in that town in February. More amazing, since Painted Buntings are generally absent on the Outer Banks, was an adult male present for several weeks in February at feeders of Marge and Ben Morris in Frisco, N.C., as reported by Marcia Lyons.

CLAY-COLORED SPARROW: Peter Worthington observed two birds, among a flock of 25 Chipping Sparrows, at his feeder in Simpsonville, S.C., on 9 January. He found one of the Clay-coloreds dead in the yard on 13 January, a result of a window collision. Two birds were seen at McClellanville, S.C., on 20 December by Charlie Walters, and one was seen at Pine Island Audubon Sanctuary in Currituck County, N.C., on 29 January by Harry LeGrand.

GRASSHOPPER SPARROW: Taylor Piephoff, David Wright, and Marvin Yoder observed one at Pineville, N.C., on 26 December. Also well inland was one seen by Robin Carter at Columbia on 19 December.

HENSLOW'S SPARROW: Seldom reported in winter from the piedmont, one was unusual near Gray Court, S.C., on 14 February, as seen by Dennis Forsythe, Robin Carter, and Donna Clark. At a site where seen in previous winters was one found by John Fussell and party at a savanna in western Carteret County, N.C., on 6 December.

LE CONTE'S SPARROW: North of the poorly-defined winter range was one found by Frank Enders near Halifax, N.C., on 19 December and seen on several dates through 27 December by Merrill Lynch and other birders. Presumably within the regular winter range was one seen by Perry Nugent at Cape Island, S.C., on 20 December.

LINCOLN'S SPARROW: This species, formerly considered very rare in the Carolinas in winter, has been seen with some frequency in recent winters, in part because of more intensive field work in its primary habitats—brush piles, hedgerows, and clear-cut fields. Simon Thompson and Hughes Zweig observed one carefully near Tryon, N.C., on 19 December, and Ken Knapp saw one on 7 February at Raleigh. Near the coast were single birds noted at Pea Island on 17 January (Knapp), on the Morehead City CBC on 20 December (John Fussell), and on the Southport CBC on 2 January (Sam Cooper).

WHITE-CROWNED SPARROW: Rare along the coast in winter were two seen near the Cape Hatteras lighthouse on 29 February by John Fussell and 5 March by Herb Hendrickson, and one at Holden Beach, N.C., on 23 January (Bruce Mack).

LAPLAND LONGSPUR: A flock of 12 to 15 longspurs spent the entire winter near a jetty at Huntington Beach State Park, S.C., as noted by Robin Carter, Perry Nugent, and other birders. One to two were again present at the Charlotte Motor Speedway near Harrisburg, N.C., as noted by Taylor Piephoff and David Wright from 2 to 28 December. Harry LeGrand saw two longspurs at Oregon Inlet on 30 January.

SNOW BUNTING: A flock of up to 18 birds was present near Salvo, N.C., in late January and early February (John Fussell et al.). Single birds were seen at Huntington Beach State Park on 23 January (Dennis Forsythe, Donna Clark) and inland at Falls Lake on 9 January (Ricky Davis).

BREWER'S BLACKBIRD: A possible regular wintering site was found in central Carteret County, N.C., by John Fussell and others. At Open Grounds Farm, a flock of 50-65 birds was seen on several dates from 23 December into February in extensive cattle pastures and feedlots. [This is apparently the first evidence of wintering by Brewer's Blackbirds in North Carolina; however, birders were not allowed to visit the site by late February, and the status of wintering blackbirds at this site in upcoming years is in doubt.—HEL]

NORTHERN (BULLOCK'S) ORIOLE: Bob Holmes observed one (of unreported age and sex) at a feeder with "Baltimore" Orioles in New Bern, N.C., from mid-January to mid February.

HOUSE FINCH: The species is now wintering in large numbers even in the coastal plain, as evidenced by 250+ in Aiken, S.C., on 27 January, as seen by Peter Stangel, and at least 150 in Annette Taylor's yard in Wilmington in early December.

RED CROSSBILL: The only reports outside the mountains during the winter were six south of Bolton, N.C., on 8 December (Sam Cooper) and one on the Roanoke Rapids CBC on 27 December (John Wright).

BOOK REVIEWS

FIELD GUIDE TO THE BIRDS OF SOUTHERN AFRICA

Ian Sinclair. 1984. Republished 1987 by The Stephen Greene Press, Lexington, Massachusetts; distributed by Penquin Books, 40 W. 23rd Street, New York, N.Y. 10010. 5 7/8 x 8 1/4 x 1 inches. Illus. with more than 850 color photographs; range maps. Glossary. Three indexes (English common names, scientific names, Afrikaans names). 368 p. Paperback, $14.95.

Sinclair's book has the same advantages and disadvantages common to all photo-illustrated field guides, and it is a bit too large for most jacket pockets. Nonetheless, bird watchers traveling to southern Africa will not want to leave home without it.—Eloise F. Potter

THE COLLINS FIELD GUIDE TO THE BIRDS OF EAST AFRICA

J. G. Williams and N. Arlott. 1988. The Stephen Greene Press, Lexington, Massachusetts; distributed by Penguin Books, 40 W. 23rd Street, New York, N.Y. 10010. Illus. Softcover. $21.95

THE COLLINS FIELD GUIDE TO THE NATIONAL PARKS OF EAST AFRICA

J. G. Williams. 1988. The Stephen Greene Press, Lexington, Massachusetts; distributed by Penguin Books, 40 W. 23rd Street, New York, N.Y. 10010. Illus. Softcover. $19.95.

The Collins Field Guides are the British equivalents to the Peterson series in this country and for years have provided helpful guides to the flora and fauna of many parts of the former British Empire. The Stephen Greene Press of Massachusetts is now co-publishing about a dozen of the Collins guides, making them more available to the increasing number of Americans traveling abroad for birding and wildlife study. During my three-week visit to Kenya last summer, I found both of these guides indispensable for identification of birds and mammals in that part of the world.

The Field Guide to the Birds of East Africa is identical to the edition published in 1980 in Great Britain. It covers East Africa from Zimbabwe to Ethiopia and Uganda. In 415 pages, 665 species are described and illustrated in 48 color plates; descriptions of an additional 633 species are included in the text as "Allied Species." Information on each species includes body length, field marks, voice, range and habitat.

Arlott's illustrations are generally excellent and the color rendition of the plates is very good. I discovered only one error in the illustrations (the nape of the White-browed Robin Chat should be rufous rather than black) although I certainly did not check each species for accuracy. Considering the large number of birds in East Africa, the choice of which species to illustrate and which to describe in text only is a difficult one. The great majority of species that a birder would be likely to observe during a typical two-week visit to East Africa are pictured. I questioned only one omission: the Sooty Chat, which I found to be extremely common, was not illustrated. It was adequately described under the "Allied Species" heading, however, leaving no doubt about its identification.

The Field Guide to the National Parks of East Africa, also by J. G. Williams, is a useful companion to the bird guide. The text is divided into three parts. Part 1 describes, in alphabetical order, the national parks, game reserves and other faunal areas of Kenya, Tanzania and Uganda. Williams gives a brief description of each park, explains the different habitats each contains and highlights some of the more interesting plants, birds and mammals in the area. I found the maps and the bird and mammal checklists for each park particularly helpful. Part 2 is a field guide to the larger and more common mammals of East Africa, with five black and white and eight color plates. For each species, the total length, field marks, range, habitat, and allied species are given in the text. The coverage is sufficient to eliminate the need to carry a separate field guide to mammals, unless one is particularly interested in small insectivores and rodents. For those who wish additional detail, a field guide to African mammals is available in the Collins series. Part 3 is actually a condensed version of Williams' and Arlott's guide to East African birds and includes 16 color plates illustrating about 175 of the most common species. Any serious birder would not be satisfied with the limited number of species illustrated, but for persons who expect to do only casual birding, the coverage is problably sufficient to substitute for a separate bird guide.

Birding in East Africa is superlative. In a two-week visit, it is possible to add over 200 species to a life list without working too hard. For birders, no trip to East Africa would be complete without the Collins bird guide. The addition of the national parks guide provides useful check-lists, maps and a concise guide to the mammals of this fascinating region.—Lynn Moseley

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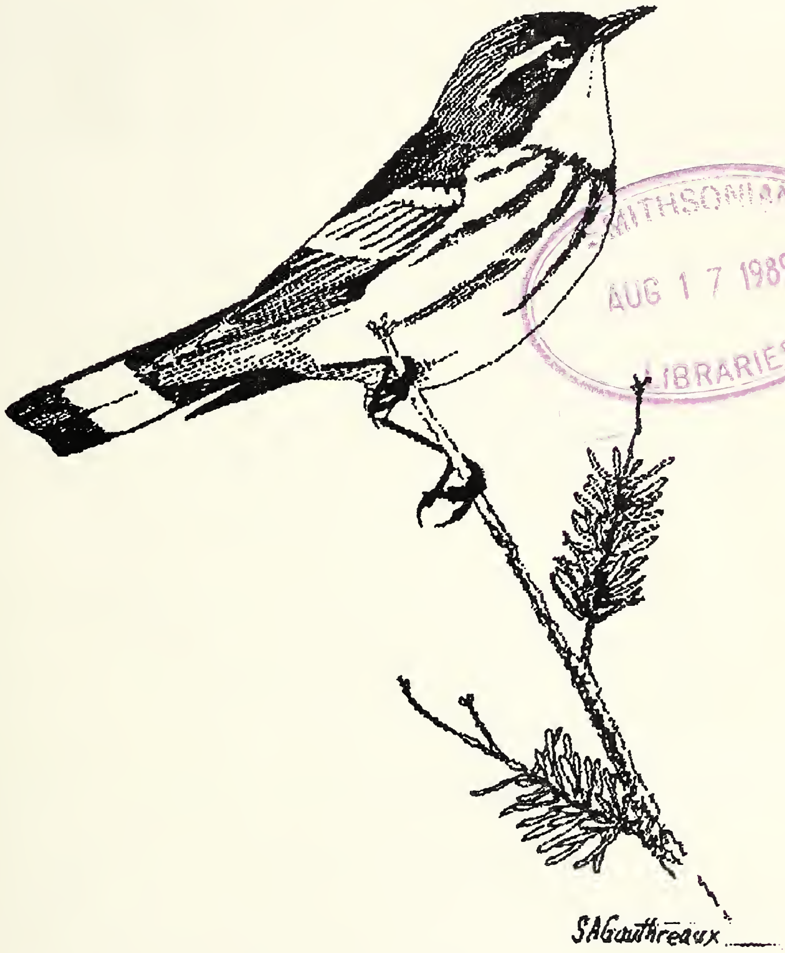

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CBC

OUR COVER—This pen and ink drawing of a Magnolia Warbler was executed by Sidney Gauthreaux of Clemson University. The artilce by Lynch & LeGrand in this issue suggests that this species may be nesting in the mountains of North Carolina.

Breeding Season Birds of Long Hope Creek Valley, Watauga and Ashe Counties, N.C.

J. MERRILL LYNCH[1] & HARRY E. LEGRAND, JR.[2]

On 17–19 June 1988, the two authors along with Vaughn Morrison and Karen Lynch conducted a survey of the breeding birds of Long Hope Creek Valley, Watauga-Ashe Counties, North Carolina. The purpose of the visit was to document the breeding season avifauna of the most extensive spruce bog complex in the North Carolina mountains. The habitats in the valley more closely resemble, botanically and ecologically, boreal forest and sphagnum bog communities of the central Appalachians (West Virginia and Maryland). The valley is also notable in that it is one of the few areas in North Carolina where red spruce (*Picea rubens*) occurs in a streamside habitat instead of in its more typical upland, mountaintop setting.

Long Hope Valley has long been recognized as an exceptionally significant botanical area in the southern Appalachians (N.C. Natural Heritage Program files). The bogs in the valley contain a number of rare and endangered plants of northern affinities including many at or near the southern limits of their range. However, until this survey no systematic ornithological field work had ever been undertaken.

This paper documents the occurrence of 71 breeding and presumed breeding species from Long Hope Valley, including a number of taxa restricted to high-elevation spruce-fir forests and several uncommon to rare species presently known from only a few locations in the North Carolina mountains.

DESCRIPTION OF THE SITE

Long Hope Creek Valley is located along the Watauga-Ashe County line in the Blue Ridge Mountains of northwestern North Carolina. The valley contains the headwaters and upper reaches of Long Hope Creek, a tributary of the North Fork of the New River. From its headwaters in Watauga County, the creek flows north for about 3.4 miles through a relatively wide, high-elevation valley before it plunges through a narrow gorge along the east flank of The Peak. Approximately two-thirds of the valley is in Watauga County with the northern third in Ashe County. The creek ranges in elevation from about 4,200 feet at the northern end of the valley to about 4,520 feet at its southern end near the headwaters.

A coniferous forest community dominated by red spruce and eastern hemlock (*Tsuga canadensis*) occurs along the floodplain of Long Hope Creek. Scattered northern hardwoods in the canopy include yellow birch (*Betula lutea*) and American beech (*Fagus grandifolia*). The spruce-hemlock-northern hardwoods community occupies broad, poorly-drained flats overlain by perennially saturated, highly organic soils. Dense thickets of great laurel (*Rhododendron maximum*) occur in the understory.

Four sphagnum bogs which range in size from one to three acres are scattered along the stream floodplain within the spruce-hemlock forest. Mats of sphagnum moss, various graminoids (*Scirpus expansus*, *Carex* spp.), cranberry (*Vaccinium macrocarpon*), and other bog plants are characteristic of the open bogs. A distinct shrub zone occurs around the fringes of the bogs. Common species include minniebush (*Menziesia pilosa*), long-stalked holly (*Ilex collina*), large leaf holly (*Ilex montana*), black chokeberry (*Sorbus melanocarpa*) and northern wild-raisin (*Viburnum cassinoides*).

The combination of relatively high elevation, cold climate, and a flat stream valley with very poor drainage has produced an unusual landscape of streamside spruce-hemlock forest and sphagnum bogs which more closely resemble boreal habitats. The valley was nominated a National Natural Landmark by the National Park Service in 1974 in recognition of its botanical and ecological significance.

The valley is enclosed by gently sloping mountains. These include on the north—The Peak (elevation 4,880 feet); on the east—Old Field Bald (4,958 feet); on the south—Elk Knob (5,520 feet), Rittle Knob (4,840 feet), and Pine Orchard Knob (4,880 feet); and on the west—Long Hope Mountain (4,680 feet).

Much of the east and west sides of the valley along the slopes of Long Hope Mountain and Old Field Bald are dominated by extensive high-elevation pastures known locally as "balds". These grassy pastures were maintained traditionally by cattle grazing until the early 1980's when portions were converted to Christmas tree plantations. All cattle have been removed from the valley and some of the pastures are presently maintained by mowing. Thickets of various hardwood saplings and shrubs are encroaching on the other pastures. Common species in the abandoned pastures include hawthorn (*Crataegus* sp.), fire cherry (*Prunus pensylvanica*), blackberry (*Rubus* sp.), flame azalea (*Rhododendron calendulaceum*), and mountain laurel (*Kalmia latifolia*). All stages of secondary succession ranging from scattered shrubs and small trees to dense thickets are represented in the overgrown pastures.

A portion of the pastures on Long Hope Mountain have been converted recently to fraser fir (*Abies fraseri*) Christmas tree plantations. Various age-class stands of firs have been planted in a patchwork pattern on the slopes and ridgecrest overlooking Long Hope Creek.

Extensive stands of northern hardwoods are present on the lower slopes of Old Field Bald as well as on the surrounding mountains. Mature stands of yellow birch, American beech, sugar maple (*Acer saccharum*), and buckeye (*Aesculus octandra*) are.characteristic of this community. The northern hardwood forest community is almost devoid of conifers, in sharp contrast to the stream valley.

In addition to the previously described habitats, a few scattered cabins and farm buildings exist in the southern portion of the valley on the lower slopes of Long Hope Mountain. A small farmpond is located on a tributary stream near the cabins. No cultivated land exists in the valley.

METHODOLOGY

During the three-day survey of the 2,500-acre valley we spent a total of 31 diurnal man-hours and 3.5 nocturnal man-hours between the hours of

0600 and 2300. Coverage included the entire 3.4 mile valley, including most of the streamside spruce-hemlock forest, several of the sphagnum bogs, the open grasslands and Christmas tree plantations on Long Hope Mountain, and the forested lower slopes and grassy upper slopes of Old Field Bald. We did not census the more distant hardwood-dominated slopes of The Peak, Elk Knob, or Pine Orchard Knob.

NOTABLE SPECIES OF LONG HOPE CREEK VALLEY

The following is an annotated list of the notable species recorded during our three-day survey. Numbers after each species indicate the cumulative three-day total of individuals seen or heard.

Cooper's Hawk: 2. One pair seen in apparent courtship flight over west slopes of Old Field Bald near Ashe-Watauga County line on 18 June; elevation 4,400 feet. Deep, slow, vigorous wingbeats by one of the soaring birds was noted.

American Kestrel: 3. Single birds were seen in the vicinity of extensive pastures on Old Field Bald and on Long Hope Mountain.

Wild Turkey: 8. Four hens observed on lower slopes of Old Field Bald along edge of pasture and four gobblers observed on north slope of Long Hope Mountain, also in pasture; both 18 June. Birds have been released in the area by the North Carolina Wildlife Resources Commission.

American Woodcock: 2. One heard performing aerial flight song on evening of 18 June; two flushed from nearby Christmas tree plantation on 19 June exhibited distraction behavior indicating probable nest or young in vicinity. Elevation of sightings about 4,350 feet.

Black-billed Cuckoo: 1. Heard calling (typical song) 18 June along upper reaches of Pine Orchard Creek at 4,320 feet. Habitat was mixed spruce-hemlock-northern hardwoods. The possibility that this individual was a late migrant cannot be ruled out although we believe the bird was on its breeding grounds based on elevation and habitat.

Yellow-billed Cuckoo: 2. Singles heard calling the typical song at elevations of 4,400 feet and 4,600 feet in mixed hardwood forest on slopes above Long Hope Creek 18–19 June. Breeding season records in North Carolina over 4,000 feet are rare. The birds were believed to be on the breeding grounds although the possibility that they were late migrants cannot be ruled out.

Eastern Screech-Owl: 2. Seen and heard along edges of mixed spruce-hemlock-northern hardwoods at 4,360 feet.

Great Horned Owl: 1. Heard calling in mixed forest along Long Hope Creek, 18 June; elevation 4,320 feet.

Northern Saw-Whet Owl: 1. An adult was seen and heard giving territorial calls from dense spruce-hemlock forest along Long Hope Creek at an elevation of 4,360 feet. The bird called from a red spruce branch about 30 feet above the ground and was observed in a flashlight beam on the evenings of 17 and 18 June. This is the lowest elevation for a documented breeding season occurrence in the state. This locality bridges the breeding season gap between Mt. Rogers, Virginia (Kain, 1987) and Grandfather Mt., North Carolina (Lee, et al., 1985).

Eastern Wood-Pewee: 2. In openings and edges of spruce-hemlock-hardwood forest, 4,360–4,440 feet.

Eastern Phoebe: 2. One pair observed around barn in open pasture at 4,400 feet.

Great Crested Flycatcher: 1. Heard calling at close range along edge of spruce-hemlock forest along Long Hope Creek at 4,350 feet on 17 June. Species is rare in North Carolina mountains at this elevation.

Barn Swallow: 8. Small nesting colony at a barn in an open pasture at 4,400 feet.

Carolina Chickadee: 4. Noted in spruce-hemlock-northern hardwoods forest near Long Hope Creek at 4,320-4,400 feet elevation.

Tufted Titmouse: 8. In spruce-hemlock forest along creek as well as in northern hardwoods on slopes; elevations 4,280-4,520 feet.

Red-breasted Nuthatch: 14. In spruce-hemlock-northern hardwood forests of valley and lower slopes down to 4,320 feet. See McNair (1987) for further elevational data in southern Appalachians.

Brown Creeper: 1. Seen in dense spruce forest on lower slopes of Old Field Bald at 4,440 feet on June 18.

Carolina Wren: 1. Heard singing along edge of pasture adjacent to spruce-hardwood forest near Long Hope Creek at 4,360 feet on 18 June. This elevation is near the upper limit for a breeding season occurrence. See McNair (1987) for further elevational data.

Golden-crowned Kinglet: 16. Occur in spruce-hemlock-northern hardwood forest along Long Hope Creek. McNair (1987) gives elevational records for the southern Appalachians.

White-eyed Vireo: 1. Heard singing in the shrubby margin of a spruce-hemlock-hardwood forest near Long Hope Creek on 18-19 June at 4,320 feet. McNair (1987) summarizes breeding information from the North Carolina mountains. The highest elevation given for reliable breeding season (and confirmed nesting) records is 4,000 feet in the Highland Plateau. Thus, while we lack breeding evidence, our breeding season observation is the highest documented record in North Carolina.

Golden-winged Warbler: 3. Singing males in brushy pastures, 2 in Ashe Co. and 1 in Watauga; near Long Hope Creek. Elevations 4,280-4,360 feet.

Magnolia Warbler: 2. We watched singing males probably on territory, on 19 June. One was along the edge of spruce-hemlock-hardwood forest on the west side of Long Hope Creek (4,320 feet) and the other was in similar habitat along the edge of an open bog about 0.75 mile upstream (4,400 feet), both in Watauga Co. This is apparently the sixth breeding season record for North Carolina, all from upland coniferous forests (Lee, et al., 1985; Chat 51:82). Our observations represent the lowest elevation breeding season records for the state. No evidence of breeding was noted at Long Hope Valley and breeding has yet to be confirmed anywhere in the state.

Blackburnian Warbler: 5. Restricted to spruce-hemlock-northern hardwood forest along Long Hope Creek. See McNair (1987) and Kain (1987) for additional breeding season data.

Hooded Warbler: 2. One singing male was on a hardwood slope adjacent to Long Hope Creek at 4,320 feet, the other singing male was in spruce-hemlock-northern hardwoods at an elevation of 4,360 feet near Long Hope Creek about one mile south, both on 19 June.

Vesper Sparrow: 17. Includes at least 12 singing males. Primarily in open pastures, but also in young Christmas tree plantations. Several adults observed carrying food. This is probably one of the largest breeding populations in North Carolina. A census of the open balds on Pond Mountain, Ashe County in June 1979 recorded 25 individuals, the highest documented number for the state (LeGrand and Potter, 1980).

Grasshopper Sparrow: 5. Singing males observed in open pastures; also observed singing from young Christmas tree plantations. Elevations ranged from 4,440 feet to 4,640 feet and probably represent the upper limit for breeding in North Carolina.

DISCUSSION

A total of 67 species were recorded during the survey. An additional 4 species have been reported from the valley during the summer but were not seen by us in this study: Ruffed Grouse, Horned Lark, Bewick's Wren, and Red Crossbill. Ruffed Grouse with young have been reported from the valley by the caretaker. Horned Larks were reported from Old Field Bald in July, 1988 by Mike Godfrey. One Bewick's Wren was noted singing near Long Hope Creek in Ashe County July 26, 1973 by Robert Teulings (Chat, 37:109). We did not find the species during the survey although suitable habitat, i.e., barns, fences, and brush at high elevation, is present. One Red Crossbill was heard calling over Long Hope Creek in June 1979 by Harry LeGrand and Tom Haggerty (LeGrand and Potter, 1980). The list mostly includes resident breeding species although we suspect the following fly-overs were non-breeding visitors: Great Blue Heron, Chimney Swift, and Common Grackle.

Notable species of the spruce-hemlock zone include the Northern Saw-whet Owl and Magnolia Warbler. Most of the typical spruce-fir forest birds that nest on high mountains in the state were present in the valley, e.g., Brown Creeper, Golden-crowned Kinglet, and Red-breasted Nuthatch.

Several species typical of low to middle elevations in the mountains were recorded at or near their upper elevational limits in the state: Yellow-billed Cuckoo, Great Crested Flycatcher, Carolina Wren, and White-eyed Vireo. All four were recorded at elevations above 4,300 feet. Also, several species not usually associated with North Carolina spruce forests were recorded in the valley's spruce-hemlock-northern hardwoods stands: Eastern Screech-Owl, Eastern Wood-Pewee, and Hooded Warbler. These species occasionally occur above 4,000 feet in the North Carolina mountains but are usually associated with hardwood-dominated forests. The occurrence of these species in spruce-hemlock forest may be attributable to the unusual streamside habitat of the valley in contrast to typical mountaintop spruce stands in other high elevation areas.

Some species or groups were scarce or absent in the valley. Woodpeckers and flycatchers were poorly represented both in terms of species diversity and population densities. However, this is not particularly unusual at high elevations in the mountains based on our experience. Species expected but not seen included: Mourning Dove, Northern Flicker, Pileated Woodpecker, *Empidonax* flycatchers (Alder, Least, or

Willow), Brown Thrasher, Black-and-white Warbler, Northern Parula, Black-throated Green Warbler, and Eastern Meadowlark. Some of these species undoubtedly occur in low densities, and further field work will verify their presence. Other more conspicuous species such as Mourning Dove and Eastern Meadowlark are apparently absent as breeders in the valley although they are known to occur at high elevations in some areas of the southern Appalachians.

The only species using the Christmas tree plantations were the five species of sparrows (see Appendix), along with Northern Bobwhite, Indigo Bunting, Rufous-sided Towhee, and American Goldfinch. Grasshopper and Vesper sparrows used the fir tops as singing perches but foraged primarily in the grassy areas adjacent to the plantations.

We surveyed several of the sphagnum bogs with the hope of finding species such as Nashville Warbler, Northern Waterthrush, Mourning Warbler, and Swamp Sparrow that are associated with this habitat type in the ecologically similar Cranberry Glades bog complex located in Pocahontas County, West Virginia, about 150 air-miles northeast of Long Hope Valley (Hall, 1983). However, the birds we found in the bogs were common, widespread species such as Song Sparrow and Rufous-sided Towhee, which also occurred in other open, shrubby habitats in the valley. A similar bog located on the summit of nearby Bluff Mountain, Ashe County, has also been surveyed and found to be lacking in species associated with more northern bog habitats (J. M. Lynch, unpublished data).

ACKNOWLEDGMENTS

The authors are grateful to Tom and Page Massengale who provided permission to conduct the bird survey at Long Hope Valley and who also provided lodging during our stay. The valley is private property and unauthorized entry is strictly prohibited.

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APPENDIX

Master Species List for Long Hope Creek Valley, Watauga and Ashe Counties, North Carolina

The following is a list of the breeding season avifauna of Long Hope Creek Valley recorded during our three-day survey, 17-19 June 1988. Species in parentheses are those that have been recorded by others in the valley, but were not seen by us during the survey.

Great Blue Heron
Turkey Vulture
Cooper's Hawk
Broad-winged Hawk
Red-tailed Hawk
American Kestrel
(Ruffed Grouse)
Wild Turkey
Northern Bobwhite
American Woodcock
Black-billed Cuckoo
Yellow-billed Cuckoo
Eastern Screech-Owl
Great Horned Owl
Northern Saw-whet Owl
Chimney Swift
Ruby-throated Hummingbird
Downy Woodpecker
Hairy Woodpecker
Eastern Wood-Pewee
Eastern Phoebe
Great Crested Flycatcher
(Horned Lark)
Northern Rough-winged Swallow
Barn Swallow
Blue Jay
American Crow
Common Raven
Carolina Chickadee
Tufted Titmouse
Red-breasted Nuthatch
White-breasted Nuthatch
Brown Creeper
Carolina Wren
(Bewick's Wren)
House Wren
Winter Wren
Golden-crowned Kinglet
Eastern Bluebird
Veery
American Robin
Gray Catbird
Cedar Waxwing
European Starling
White-eyed Vireo
Solitary Vireo
Red-eyed Vireo
Golden-winged Warbler
Chestnut-sided Warbler
Magnolia Warbler
Black-throated Blue Warbler
Blackburnian Warbler
Ovenbird
Common Yellowthroat
Hooded Warbler
Canada Warbler
Scarlet Tanager
Rose-breasted Grosbeak
Indigo Bunting
Rufous-sided Towhee
Chipping Sparrow
Field Sparrow
Vesper Sparrow
Grasshopper Sparrow
Song Sparrow
Dark-eyed Junco
Red-winged Blackbird
Common Grackle
Brown-headed Cowbird
(Red Crossbill)
American Goldfinch

General Field Notes

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NOTICE

Publication of any unusual sightings of birds in the Field Notes or Briefs for the Files does not imply that these reports have been accepted into the official Checklist of Birds records for either North or South Carolina. Decisions regarding the official Checklists are made by the respective State Records Committees and will be reported upon periodically in THE CHAT.

Connecticut Warbler: First Sightings from Wake County, N.C., and a Review of Migration Records Statewide

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At noon on 12 May 1988, I carried my binocular with me on the walk to my rural mail box, 4.5 miles N of Zebulon, Wake County, N.C. As I approached the end of the driveway, a pair of Blue Grosbeaks (*Guiraca caerulea*) chased a small bird into a dry thicket. The bird perched about 4 m from me and approximately 1 m from the ground on a horizontal limb of a sapling. Although the tail of the bird was hidden by a leaf, I could distinguish the field marks of a female Connecticut Warbler (*Oporornis agilis*). The bird had an unmarked olive back, grayish head, and yellow underparts except for the buffy throat and a suggestion of a gray hood across the upper breast. The prominent eye-ring was complete and slightly buffy. The bird almost perfectly resembled the illustration of the female Connecticut Warbler in *Field Guide to the Birds of North America* (National Geographic Society, 1983).

Late the next afternoon, 13 May 1988, as I walked along a path that skirts a beaver pond adjacent to the Zebulon Country Club, a small bird with an unmarked olive back and gray head flushed almost from under my feet and flew into the dense wet thicket beside the pond. The bird did not respond to pishing, so I continued my walk. Upon my return to the thicket that the unidentified bird had entered, I saw a small bird flit into a low shrub. Only the head was visible; it was dark gray with a prominent white eye-ring. As I tried to obtain a better view of the bird, it flew from shrub to shrub, uttering loud, ringing *chip* notes with each move. Once it was completely concealed, it began to sing. The loud, percussive, ringing song was nearly deafening at a distance of no more than 5 m. What I heard does not match my recording of the Connecticut Warbler's song or the various renderings of its vocalizations in English syllables. Three or four distinctly separated *cheep* notes were followed by three or four lower-pitched and slightly hurried *chup* notes. The last time the bird sang in my presence, it ended the song with a *tweet*, given with a rising inflection. Of the North American wood warblers known to have a loud, ringing song, only the male Connecticut Warbler has a gray head and throat and a complete, white eye-ring.

When the 1942 edition of *Birds of North Carolina* was prepared, there were no spring records from North Carolina outside the mountains. At Asheville, Thomas D. Burleigh found the Connecticut Warbler to be a rather late spring migrant, with almost daily records spanning the period from 12 through 27 May 1930. Subsequent reports from mountain localities extend the period of occurrence from 27 April (Chat 38:66) to 30 May (Chat 39:28).

The first published spring record of the Connecticut Warbler from the piedmont occurred at North Wilkesboro on 6 May 1956 (Chat 20:63); the first from the coast at Wilmington on 29 April 1967 (Chat 31:82); and the first from the eastern piedmont in Stanly County on 26 April 1969 (Chat 33:98), which is the earliest spring date for the state. In 1971, Connecticut Warblers were reported from Winston-Salem on 1 May (Chat 35:82) and 9 May (Chat 35:87), from near Durham on 7 May (Chat 35:87), and from Charlotte on 27 May (Chat 35:87). By the spring of 1974, Winston-Salem bird students considered the species to be a rare but regular spring transient (Chat 38:65). A second spring record for the coastal region occurred on 26 May 1979, when a female was seen at Fort Macon State Park (Chat 43:101). A singing male was at Crowders Mountain State Park on 13 May 1986 (Chat 51:55). H. T. Hendrickson (pers. comm.) and Marie Yow, a graduate student at the University of North Carolina at Greensboro, collected a male in breeding plumage at Greensboro on 13 May 1969. Dr. Hendrickson has donated the study skin to the North Carolina State Museum of Natural Sciences. Thus, prior to the two sightings from eastern Wake County, only five of the more than forty spring records of the Connecticut Warbler known from North Carolina had come from the portion of the state east of Winston-Salem and Charlotte.

According to *A Guide to Field Identification of Birds of North America* (Robbins, Bruun and Zim, Golden Press, 1983), the average first arrival date for the Connecticut Warbler in southern Florida is 1 May and the average first arrival date on the breeding grounds in central Canada is 1 June. The spring migration dates for North Carolina (26 April to 30 May) now span the time period from slightly early arrival in southern Florida to average arrival on the breeding grounds. The peak of occurrence in the piedmont is during the first two weeks of May; the peak in the mountains remains as Burleigh found it, during the third and fourth weeks of May.

As a fall transient, the Connecticut Warbler probably occurs statewide, though—as is the case for the spring—there is no published record from the coastal plain away from the immediate coast. Coastal and piedmont sightings predominate in the fall, and in recent years the species has been reported almost annually from the Outer Banks. The earliest date for a fall migrant is 18 August, when one was banded at Hillsborough in 1970 (Chat 35:34); the latest date is 31 December, when an adult male was reported on the Bodie–Pea Island Christmas Bird Count in 1973 (Chat 38:13). A majority of the fall records are from mid-September to mid-October, the peak migration period for passerines in North Carolina

Spotted Redshank from North Carolina

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On 13 May 1987 Cooper discovered a Spotted Redshank (*Tringa erythropus*) in nearly full breeding plumage near the point of Cape Hatteras, Dare County, N. C. The bird was intermediate in size between nearby Lesser Yellowlegs (*T. flavipes*) and Greater Yellowlegs (*T. melanoleuca*). Although the bird resembled a yellowlegs in profile, its sooty black chest mottled and blotched with white was eye-catching (Fig. 1). The lower belly and crissum showed more white than the chest and upper belly. Scapulars, wing coverts, and tertials were spotted with white. The legs were dull black, showing no sign of bright color. The bill was long and straight, about twice the length of the head, and drooped at the tip; its color was dark gray to black with bright red on the basal half of the lower mandible. A white supercilium extended over the eye, which was also surrounded by a broken white eye-ring. The bird resembled a dowitcher (*Limnodromus* sp.) in flight, with dark wings and rump and a wedge of white on the back (Fig. 2). It fed actively in deeper water, running and seining with a sideways sweeping motion of the head. So distinctive was this behavior that it alone enabled us to locate the bird in the flock. Cramp and Simmons (1983) describe this behavior as being characteristic of the Spotted Redshank.

Although the combination of field characters and behavior clearly indicated Spotted Redshank, two points warrant discussion. First, all field guides (e.g., Bruun, Singer & Campbell, 1970; Heinzel, Fitter & Parslow, 1972; Peterson, Mountfort & Hollum, 1974; National Geographic Society,

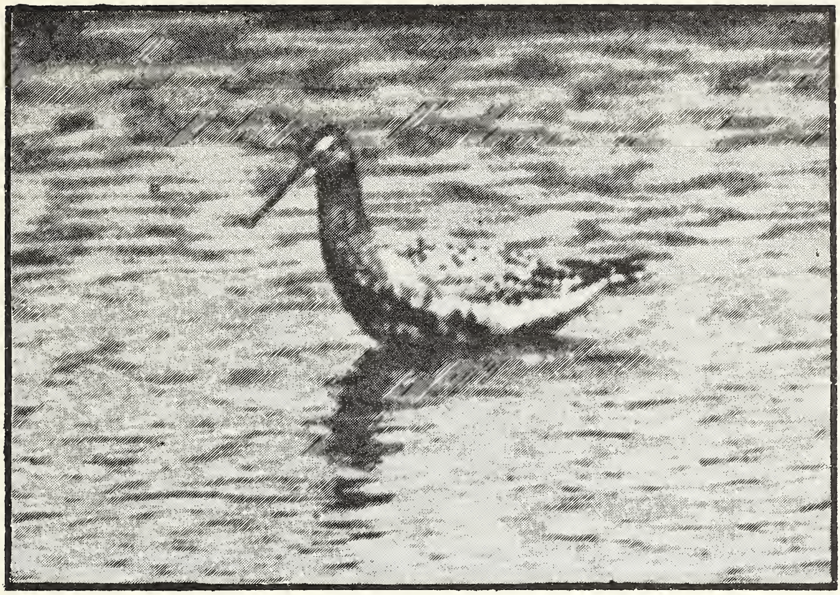

Figure 1. Spotted Redshank at Cape Hatteras Point, N.C. Note the dark neck and blackish upper chest of breeding plumage. The red base of the lower mandible is visible in this photograph as a pale region on the basal half of the bill. Photo by M. Tove, 15 May 1987

1987) show Spotted Redshanks as having bright red legs, not black as in the bird we observed. However, Cramp and Simmons (1983) point out that the normal leg color of breeding adults ranges from red to black. Second, extralimital records of dark-colored *Tringa* (i.e., breeding-plumaged Spotted Redshanks) have traditionally raised questions of oiled Greater Yellowlegs. The shape and color of the bill, white back, and feeding behavior, clearly distinguished the bird from that species.

Prater, Marchant & Vuoriuen (1977), Johnsgard (1981) and Cramp and Simmons (1983) indicate that the sexes may be told apart on the basis of plumage. The presence of worn and fresh scapulars and increase in dark chest and neck feathers observed during the period indicated a molting bird. Although no features are reliable for sex determination during molt, several characteristics suggested a female. The prominent white spots in the back and wing feathers, gray (as opposed to blackish) color of the fresh plumage, and whitish crissum were consistent with female plumage.

There is a single previous report of Spotted Redshank from North Carolina. Hall and Clement (1960:232) presented a second-hand observation of a bird seen 23 May 1955 at Pea Island by Erard Mattiessen who reported it to R. C. Clement:

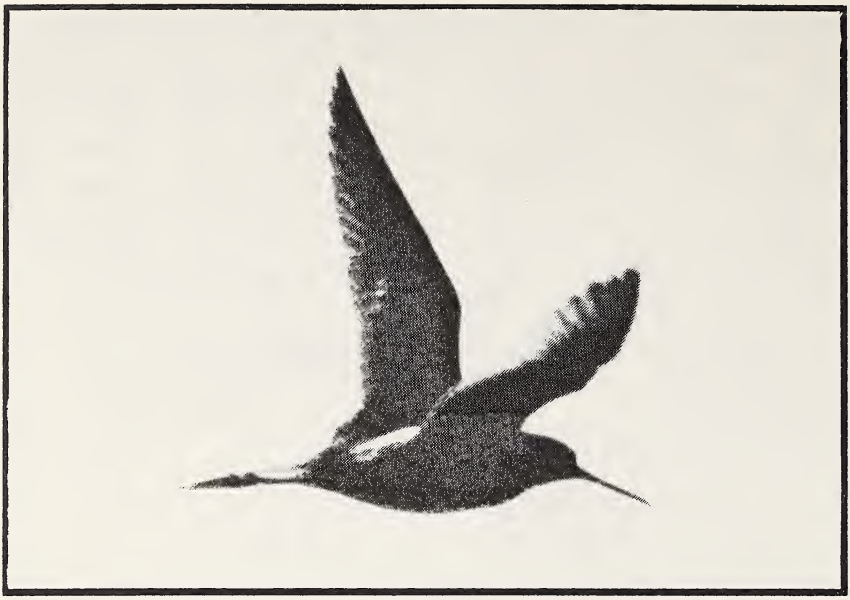

Figure 2. Spotted Redshank in flight at Cape Hatteras Point. The white back, plain upper wing surface and straight bill with drooping tip are all evident. Photo by M. Tove, 16 May 1987.

> "Mr. Matthiessen's annotations on this tall, black-bellied wader include the following comments: bill straight, reddish orange, dark-tipped (not plover bill); head, breast solid black (no white); back mottled reddish brown (grouse color); conspicuous white tail patch visible in flight; no apparent wing stripes; underparts [crissum in sketch. R.C.C.] lighter (gray); legs dark (possibly reddish)."

In spite of some apparent discrepancies (e.g., back color), we believe this to correctly indicate a Spotted Redshank. Clement (in Hall and Clement, 1960) further noted that on 31 May 1955, Donald Burger of Bristol, England observed a Spotted Redshank at Teverton, Rhode Island. While this sighting may or may not refer to the same individual, it is worth mentioning because the number of extralimital rarities found in the 1950's was markedly less than in the 1980's (due to coverage).

Also present on 13 May 1987 were a transition-plumaged Curlew Sandpiper (*Calidris ferruginea*) and a breeding-plumaged female Ruff (*Philomachus pugnax*). The Spotted Redshank remained in the area through at least 17 May. This unusual concentration of extralimital birds was strangely not associated with large shorebird flocks or any abnormal weather patterns (storms).

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A Ruffed Grouse Specimen from Seneca, S.C.

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On the evening of 4 November 1987, Busch recovered a Ruffed Grouse (*Bonassa umbellus*) that had flown into a glass door at 1000 E. North First Street in Seneca, Oconee County. The bird, a young male, weighed 600 g and was in partial molt, with its crest and one ruff in pin feathers. Much of its throat skin was left at the impact site, along with many contour feathers. The flight and tail feathers are in good condition, with very little wear. The crop contained only one red dogwood (*Cornus* sp.) fruit and a piece of a green leaf.

Grouse are considered rare residents of South Carolina's mountains are are casual elsewhere in the state (Post and Gauthreaux, Contrib. Charleston Mus. 18, 1989). There are no South Carolina specimens in any collection in this state, and this skin (CUSC 2309) may be the only specimen of Ruffed Grouse from the piedmont of South Carolina.

Attempted Nesting of Marsh Wren in Guilford County, N. C.: A Commentary

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Hendrickson and Ferebee (1988) made an understandable mistake claiming the single singing Marsh Wren (*Cistothorus palustris*) in appropriate breeding habitat from 3-5 July 1987, with a 'dummy' nest discovered on 8 July, constitutes a 'significant inland expansion of breeding range.' 'Dummy' nests attract females, serving as a courtship center from which the male seeks to attract mates (Kale, 1965; Verner, 1965; but see Leonard and Picman, 1987, for an alternative explanation). Multiple nest building is a common feature of wrens, including the closely related Sedge Wren (*C. platensis*). McNair (1983) cited several sources for Sedge Wrens in the southeast USA where males who built 'dummy' nests did not remain to breed and which were not known to be mated. The same breeding criteria explained for the Sedge Wren (McNair, 1983) also applies to the Marsh Wren. Thus, nest building behavior by Marsh Wrens should be considered evidence of possible breeding in the Carolinas where they are not known to breed inland, though they do so at several inland localities in Virginia (Kain, 1987). Nevertheless, Hendrickson and Ferebee's discovery of a Marsh Wren building a 'dummy' nest in Guilford County, N.C., is especially interesting, and should stimulate other observers to search for inland breeding pairs of this species in the Carolinas.

Acknowledgments. I thank H. Hendrickson for reviewing this note.

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CBC Rare Bird Alert
(704) 332-BIRD

BRIEFS FOR THE FILES

HARRY E. LeGRAND, JR.
(all dates 1988 unless otherwise indicated)

COMMON LOON: One at Thunder Lake near Cedar Mountain, Transylvania County, N.C., from 7 to 25 May was quite late, as noted by Norma Siebenheller. Dennis Forsythe and party had an excellent count of at least 300 Commons at Lake Keowee in northwestern South Carolina on 2 April.

BLACK-CAPPED PETREL: Dennis Forsythe saw one off Charleston, S.C., on 18 May.

SHEARWATERS: A rather rare feat was the finding of four species of shearwaters on a single pelagic trip — off Carolina Beach, N.C., on 31 May. Sam Cooper noted one Sooty, six Cory's, one Greater, and two Audubon's.

GREATER SHEARWATER: Rather infrequently seen from shore were three noted from Cape Hatteras point, N.C., on 28 May by Alan Spearman.

SOOTY SHEARWATER: The peak counts seen from shore at Cape Hatteras point were 65 on 28 May (Alan Spearman) and 26 on 15 May (Sam Cooper).

WHITE-TAILED TROPICBIRD: Bill Brooks found a dead immature at Bald Head Island, N.C., in August 1987. The specimen has been placed in the collection at the University of North Carolina at Wilmington. Taylor Piephoff and David Wright saw an adult trying to snatch fish from the bait rail of a boat off Morehead City, N.C., on 31 May. Dennis Forsythe reported that boat captain R. Scott saw two adults off Charleston on 19 May.

GREAT CORMORANT: Mike Tove and party saw three at Oregon Inlet, N.C., and three apparently different individuals along the surf at nearby Pea Island, on 12 March. At sites where rarely reported were three at Ocracoke Inlet, N.C., on 26 April (John Fussell) and one at a jetty near Charleston on 30 March (Dennis Forsythe). At Masonboro Inlet, N.C., where regular in winter, Sam Cooper noted two immatures still present there in June.

DOUBLE-CRESTED CORMORANT: Inland records and numbers of migrants continue to increase dramatically in the Carolinas. Excellent counts were 450+ at Falls Lake in Durham County, N.C., on 25 April (Ricky Davis) and 400+ seen in flight near Goldsboro, N.C., on 5 May (Eric Dean). At Thunder Lake in Transylvania County, N.C., Norma Siebenheller saw two from 7 to 20 May, the third consecutive spring she has seen the species at this lake.

ANHINGA: A notable range extension was the discovery of two active nests near a Great Blue Heron colony on Mush Island near Weldon, N.C. Merrill Lynch and Vaughn Morrison found the nests on 30 April. Other records in North Carolina included one seen in flight near the Roanoke River along NC 11-42 in Martin County on 15 and 22 May (John Wright), one near Lake Benson south of Raleigh on 30 April (Robert Hader), one at New Bern on 27 March (Bob Holmes), and single birds at Great Blue Heron colonies at Whipping Creek Lake and Swan Creek Lake at Alligator River National Wildlife Refuge on 1 and 2 April (Merrill Lynch et al.).

AMERICAN BITTERN: Simon Thompson reported that one was found in weak condition, which later died, in a garden in Polk County, N.C., on 15 April. One was seen on 28 May at an impoundment in Croatan National Forest in eastern Jones County, N.C. (Harry LeGrand, Merrill Lynch).

GREAT BLUE HERON: Apparently newly discovered breeding colonies were 10-15 pairs at Whipping Creek Lake in Dare County, N.C., and at least 10 pairs at Swan Creek Lake in adjacent Hyde County, as seen by Merrill Lynch, Derb Carter, and others on 1 and 2 April.

SNOWY EGRET: Rare inland in spring were single birds in North Carolina at Lake Townsend near Greensboro on 4 May (Herb Hendrickson, Peggy Ferebee), and near Seaboard in Northampton County on 29 May (Harry LeGrand, Karen Lynch, Merrill Lynch).

GREAT EGRET: Quite late in departing was one seen near Greensboro from 25 to 28 December 1987 by John Schoonover and Ron Morris.

BLACK-CROWNED NIGHT-HERON: Inland migrants were seen on 11 and 19 April at Falls Lake (Ricky Davis), on 16 April at Lake Adger in Polk County, N.C. (Simon Thompson), and on 8 May at Jordan Lake in eastern Chatham County, N.C. (Norm Budnitz).

YELLOW-CROWNED NIGHT-HERON: A pair was seen in flight along the Neuse River at Goldsboro on 1 April by Harry LeGrand and Ricky Davis. At least one pair nested in suburban Hampton Park in Charleston, as reported by Dennis Forsythe.

GLOSSY IBIS: Quite rare inland at any season, one was notable at Goldsboro from 29 March to 1 April, as seen by Eric Dean, Harry LeGrand, and Ricky Davis.

ROSEATE SPOONBILL: Seldom reported from the Carolinas was a spoonbill seen by Julie Finlayson from 24 to 26 April at Huntington Beach State Park, S.C. Undoubtedly the same bird was seen later in the spring at the Santee River delta in Georgetown County by Sidney Gauthreaux, Chris Marsh, Carroll Belser, and Chuck Pfister.

TUNDRA SWAN: Locally rare were two seen near Fayetteville, N.C., from 3 to 9 March by Philip and Jim Crutchfield, and one seen at Davis, Carteret County, N.C., on 1 April by Ricky Davis and Harry LeGrand.

RING-NECKED DUCK: Norma Siebenheller saw a male on the late date of 27 May at Thunder Lake in Transylvania County, N.C.

GREATER SCAUP: A male was seen in comparison with four Lesser Scaups on a farm pond in Randolph County, N.C., on 23 December 1987 (Ron Morris). Quite late, though it appeared to be sick or injured, was a male noted by Lex Glover in the surf at Edisto Beach, S.C., on 27 May.

OLDSQUAW: Always of interest inland, one was noted on 2 April at the Little River Dam of Lake Keowee, S.C., by Dennis Forsythe and party.

WHITE-WINGED SCOTER: A good count for the coast south of the Outer Banks was 10 seen migrating past Atlantic Beach, N.C., on 3 April by John Fussell. He saw eight more in migration farther north at Cape Hatteras on 7 April.

BUFFLEHEAD: Simon Thompson reported 64 birds at Columbus, N.C., on 24 March; this is an excellent total for the foothills.

HOODED MERGANSER: A pair apparently nested at a wooded lake with standing dead trees near Cedar Mountain, Transylvania County, N.C., as reported by Norma Siebenheller.

COMMON MERGANSER: Ron Morris observed a female for most of December 1987 at the lake at the Zoological Park near Asheboro, N.C.

RUDDY DUCK: A pair was present at Goldsboro through the end of May, as seen by Eric Dean, but he noted no evidence of nesting.

OSPREY: Robert Hader reported an apparent increase in breeding birds at Jordan Lake, as he found six nests this spring. He also observed a nest at nearby Falls Lake; a chick was in this nest on 30 May.

AMERICAN SWALLOW-TAILED KITE: Notable spring visitors were seen by Herb Hendrickson et al. at Pea Island, N.C., on 21 May, and by Ed and Thelma Marrow at Tarboro, N.C., on 9 April. Jeannine Angerman saw another in early April at Allendale, S.C.; this individual might be from the breeding population along the nearby Savannah River.

MISSISSIPPI KITE: Outside the usual breeding range were single birds seen in flight over Raven Rock State Park, N.C., on 13 May (Floyd Williams, Paul Hart) and over Buxton, N.C., on 14 May (Sam Cooper). Merrill Lynch and party saw one to two birds each on 7 May near Caledonia Prison in Halifax County, N.C., and near Hamilton, N.C.

BALD EAGLE: An active nest was discovered this winter or spring near the Pamlico River in Beaufort County, N.C. (fide Tom Henson). This is currently one of just three known active nests in the state. Sam Cooper reported that an immature was found dead under power lines in Long Beach, N.C., in late April; it had been hacked in Mississippi.

AMERICAN KESTREL: Presumably a late migrant was a female seen by Lex Glover at Georgetown, S.C., on 31 May.

MERLIN: Rare as a migrant inland, single birds were noted by Jay Carter and John Hammond at Clinton, N.C., on 21 April; by Eric Dean at Goldsboro on 20 and 27 April; by Frank Enders in central Halifax County, N.C., on 15 May; and by Enders on the late date of 28 May at Arcola, Warren County, N.C.

PEREGRINE FALCON: Good finds were birds seen by Bruce Mack on 3 March at Fort Jackson, S.C., and by Eric Dean on 7 March at Goldsboro.

YELLOW RAIL: Derb Carter watched a marsh fire just east of Poplar Branch, Currituck County, N.C., on 2 March, hoping to see rails and other birds flushed by the flames. One Yellow Rail was seen by Carter.

BLACK RAIL: John Fussell heard birds presumably on territory in tidewater North Carolina: four near Hobucken from 29 to 31 May and one near Gull Rock on 31 May. In South Carolina, one was seen in a cattail marsh at Huntington Beach State Park on 1 May (Chris Marsh, Barbara Thomas), and one was flushed at Pumpkinseed Island near Georgetown on 17 May (Marsh, Keith Bildstein). The breeding distribution of the species in the latter state is poorly known and in need of investigation.

KING RAIL: Infrequently reported inland, one was heard calling at Jordan Lake on 8 May by Jennifer and Nowell Creadick, and another was seen and heard at the Becker's Sand and Gravel Company near Fayetteville on 12 May by Philip Crutchfield.

VIRGINIA RAIL: John Fussell heard two calling near Hobucken, N.C., on 29 May, presumably indicating territorial birds.

PURPLE GALLINULE: Single birds were seen at four coastal sites in North Carolina, but the species is not known to breed at any of these—Twin Lakes at Sunset Beach on 22 April (Philip and Jim Crutchfield), at Greenfield Lake in Wilmington on 29 April (Kitty Kosh), near Southport on 1 May (Sam Cooper, Jeremy Nance), and at Pea Island on 29 May (Alan Spearman).

BLACK-BELLIED PLOVER: The only spring record from an inland locale was one seen by Peter Worthington at Fountain Inn, S.C., on 13 May.

LESSER GOLDEN-PLOVER: Always a good find in spring, two birds in winter plumage were seen at the Anderson County Airport, S.C., on 24 April by Dennis Forsythe and Donna Clark.

PIPING PLOVER: Two breeding records were reported from Brunswick County, N.C., at the southern edge of the breeding range. Clyde Sorenson saw a pair with a chick on 21 May at Long Beach. Zora Weisbecker saw an adult with a large chick, and a second adult with a smaller chick a few hundred yards away (perhaps just one nesting pair), at Holden Beach in June 1987.

BLACK-NECKED STILT: Up to 14 birds were present at Eagle Island near Wilmington this spring, according to Sam Cooper, who noted several nests in 27 May.

GREATER YELLOWLEGS: One was rather late at Thunder Lake in Transylvania County on 25 May (Norma Siebenheller).

WILLET: Seldom reported inland in spring were two birds seen by Paul Koehler at the Silver Bluff Sanctuary in Aiken County, S.C., on 28 and 29 April.

SPOTTED SANDPIPER: Apparently late migrants were three seen on rocks in the Cape Fear River at Raven Rock State Park, N.C., on 4 June by Paul Hart.

UPLAND SANDPIPER: The only reports of more than single birds were nine at Cherry Hospital near Goldsboro on 15 April (Eric Dean) and three at the Downtown Spartanburg Airport, S.C., on 3 April (Dennis Forsythe, Donna Clark).

WHIMBREL: Eric Dean found a very rare inland Whimbrel at Goldsboro on 20 May.

LONG-BILLED CURLEW: Dennis Forsythe saw one curlew just west of Folly Beach, S.C., on 16 March.

WESTERN SANDPIPER: Though at times fairly common inland in fall, this species is rare away from the coast in spring. Sightings this season inland were of one near Greensboro on 27 April (Herb Hendrickson, Peggy Ferebee) and two in breeding plumage in northern York County, S.C., on 7 May (Taylor Piephoff).

WHITE-RUMPED SANDPIPER: The only inland spring sightings were three at Winston-Salem, N.C., on 8 May (Ramona Snavely, Alan Snavely), two near Fayetteville on 12 May (Philip Crutchfield), and one on 11 May and two on 20 May at Goldsboro (Eric Dean). Excellent coastal counts were 375 on the Outer Banks from Cape Hatteras to Bodie Island on 30 May (Ricky Davis), 100+ at Eagle Island on 27 and 28 May (Sam Cooper), and 18 at Bear Island Wildlife Management Area in Colleton County, S.C., on 26 May (Lex Glover).

DUNLIN: Inland records were of three seen by Bill and Margaret Wagner on 24 April near Durham and one seen by Peter Worthington at Fountain Inn, S.C., on 13 May.

RUFF: Sam Cooper and Hal Bain observed a female at Eagle Island on 22 April.

SHORT-BILLED DOWITCHER: The only inland spring report was of one at Goldsboro on 20 May (Eric Dean).

LONG-BILLED DOWITCHER: Spring departure dates for this species are poorly known. Seemingly rather late were several at Bodie Island on 7 May (John Fussell et al.) and one at Eagle Island on 9 May (Sam Cooper).

RED-NECKED PHALAROPE: Always a notable discovery on land in the Carolinas, two in breeding plumage were seen by Herb Hendrickson and Peggy Ferebee at Pea Island on 20 May. Sam Cooper noted eight on a pelagic trip off Carolina Beach, N.C., on 29 May.

POMARINE JAEGER: Single birds were seen off Morehead City on 21 May (Harry LeGrand) and at Cape Hatteras point on 28 May (Taylor Piephoff, David Wright).

PARASITIC JAEGER: Single birds were seen on pelagic trips off Charleston on 30 March (Dennis Forsythe), off Morehead City on 21 May (Harry LeGrand), and off the latter town on 31 May (Taylor Piephoff, David Wright).

LONG-TAILED JAEGER: This is one of the most sought-after pelagic species in the Carolinas. A few individuals are seen regularly in late spring at Cape Hatteras point, where Taylor Piephoff and David Wright saw an adult on 28 May.

LAUGHING GULL: Single birds were found inland in North Carolina on 12 April at Goldsboro by Eric Dean, on 8 May at Jordan Lake by Sterling Brackett, and on 21 May at Roanoke Rapids (at a mall parking lot) by Frank Enders.

LITTLE GULL: This gull appears regularly among the large flocks of Bonaparte's Gulls along the Outer Banks in late winter and early spring. This spring John Fussell, Sam Cooper, and John Wright saw seven adult Littles at Cape Hatteras on 5 March. Derb Carter, Ricky Davis, Harry LeGrand, and Mike Tove saw three adults on 12 March near Rodanthe and two adults and an immature on the following day near Oregon Inlet.

COMMON BLACK-HEADED GULL: John Fussell observed an immature at Ocracoke, N.C., on 13 March. [This species seldom appears with Bonaparte's Gulls, as one might suspect. Black-headeds tend to occur alone or with Ring-billed Gulls and are completely unpredictable in habitat, time of year, and location of appearance in the Carolinas, other than appearing in coastal areas during the cooler months.—HEL]

BONAPARTE'S GULL: Ron Morris noted a good count of 225 at the Tuckertown Dam on the Yadkin River, N.C., on 29 November 1987.

ICELAND GULL: John Fussell observed a first-winter bird at Wanchese, N.C., on 9 March. Sam Cooper saw an Iceland believed to be in third-winter plumage at an island in Hatteras Inlet, N.C., on 6 March.

GLAUCOUS GULL: A good find for South Carolina was one in second-winter plumage noted by Chris Marsh and Phil Wilkinson on 19 March at Georgetown.

CASPIAN TERN: A remarkable inland count of 29 was made by Ricky Davis at Falls Lake on 19 April.

ARCTIC TERN: One was seen with a small flock of Bridled Terns off Morehead City on 21 May by Harry LeGrand and Mike Tove.

SOOTY TERN: One to two adults were again present at Cape Hatteras point, this year from mid-May into the summer. Two were also observed off Morehead City on 21 May by Harry LeGrand and Mike Tove.

BLACK-BILLED CUCKOO: The only spring sightings were of single birds seen at the Savannah River Plant, S.C., on 25 April (Peter Stangel) and noted calling near Conway, S.C., on 26 April (Chris Marsh).

WHIP-POOR-WILL: This species has definitely spread far into the coastal plain as a breeder in the last decade, but it is not known if the Chuck-will's-widow has been affected by the increase in numbers of the former. John Fussell heard 11 birds of each species, in 17 stops, along NC 306 in Pamlico County, N.C., between Minnesott Beach and the Beaufort County line on the night of 30-31 May.

YELLOW-BELLIED SAPSUCKER: Harry LeGrand observed presumed breeding pairs at three sites (Trout Lake, Moses Cone Craft Center, and along the trail to Flattop Mountain) along the Blue Ridge Parkway near Blowing Rock, N.C., on 1 May. He saw a female digging a nest cavity at the last site.

RED-HEADED WOODPECKER: One bird, apparently a migrant, was seen at a high elevation (about 4,500 feet) at Black Camp Gap at Great Smoky Mountains National Park on 14 May (Ruth and Jerry Young).

LEAST FLYCATCHER: Ken Knapp saw and heard one near Raleigh on 30 April. Rare and late was another migrant seen and heard calling near Fayetteville on 19 May by Philip Crutchfield. One Least was on territory near Tryon, N.C., from 4 May into June, as noted by Simon Thompson.

EASTERN PHOEBE: Near the southeastern edge of the breeding range was a pair that nested at Lugoff, S.C. Lex Glover noted that a first clutch failed, but a second clutch was begun on 29 May.

GRAY KINGBIRD: An excellent find was one seen on a telephone wire just south of Avon, N.C., on 19 May. A photo taken by Brian Patteson has been given to the N.C. State Museum for documentation.

TREE SWALLOW: Norma Siebenheller reported that the species nested this summer at a lake near Cedar Mountain, N.C., that contained standing dead trees. Tree Swallows have previously been reported as nesting in Transylvania County, in bird boxes.

CLIFF SWALLOW: One was a late migrant at Wilmington on 28 May (Sam Cooper, Jeremy Nance).

FISH CROW: A very good count for the central piedmont was 21 birds seen at a roost in Greensboro on 24 May by Herb Hendrickson.

COMMON RAVEN: Always of interest in South Carolina, one was seen at Sassafras Mountain on 2 April by Dennis Forsythe and party. Another raven was locally rare at Tryon, N.C., on 16 and 17 March (Simon Thompson).

RED-BREASTED NUTHATCH: The species was very scarce during the winter; thus, one seen on the late date of 8 May at Jordan Lake by Robert Hader was quite notable.

BROWN CREEPER: Generally rare in the coastal plain after mid-April, a creeper seen by John Fussell on 6 May near Scotland Neck, N.C., was very late.

GRAY-CHEEKED THRUSH: This species, along with the other spotted thrushes (except Hermit), appear to be declining as migrants in the Carolinas. One of the rather few spring records was an early individual seen at Rocky Mount, N.C., on 30 April by Ricky Davis.

SOLITARY VIREO: This species' breeding range in the piedmont is somewhat spotty. Thus, of interest was an adult seen feeding a fledgling near Blaine in Montgomery County, N.C., on 22 May by Ron Morris.

WARBLING VIREO: For the third consecutive spring, a singing male was found at a cypress pond in eastern Halifax County, N.C., far removed from the usual breeding range. Merrill Lynch and party noted the bird on 7 May.

PHILADELPHIA VIREO: One of the rarest "Eastern" migrants in the Carolinas during the spring is the Philadelphia Vireo. Robert Hader noted one at Jordan Lake on 3 May.

BREWSTER'S WARBLER: Peter Worthington observed a female of this hybrid during the spring at Paris Mountain State Park, S.C.

TENNESSEE WARBLER: Seldom seen in the coastal plain in spring was one seen as closely as 15 feet along the Pee Dee River in southwestern Horry County, S.C., on 1 May (Steve and Barbara Thomas).

ORANGE-CROWNED WARBLER: One was seen by Heathy Walker in her yard in Charlotte, N.C., from 29 March to 1 April.

NASHVILLE WARBLER: Always notable in the spring was an individual seen by Simon Thompson at Tryon on 25 April.

BLACKBURNIAN WARBLER: A male seen at Fayetteville on 10 May by Philip Crutchfield and Dot Hutaff was rare in the coastal plain.

BAY-BREASTED WARBLER: Unusual along the coast in spring was a singing male seen by Dennis Forsythe near Mount Pleasant, S.C., on 12 May.

CERULEAN WARBLER: Migrants near the coast were seen at Beidler Forest near Harleyville, S.C., on 16 April (Willie Hutcheson, Charlie Walters) and at Wilmington on 30 April (Jeremy Nance, Kitty Kosh). A most unusual record, far from any known breeding sites, was one seen singing on territory along the Cape Fear River at Raven Rock State Park, N.C., on 22 May and 4 June by Paul Hart. Simon Thompson again noted one on territory near Tryon, in May and June.

SWAINSON'S WARBLER: Lex Glover observed one carrying food at Lugoff, S.C., on 24 May, and Merrill Lynch noted a territorial bird along Fishing Creek near Enfield, N.C., on 1 May and 5 June.

ROSE-BREASTED GROSBEAK: Normally uncommon along the coast in spring, Sam Cooper had a surprising count of six in his yard at Wilmington on 30 April.

DICKCISSEL: A colony of at least six singing males was present near Townville, S.C., in late April and early May, as seen by many observers at the Carolina Bird Club meeting at Clemson. Jim Mulholland saw a non-singing male just south of Raleigh on 29 May. The species has nested, or presumably nested, in recent years near both of these locales.

BACHMAN'S SPARROW: A rare piedmont report was one singing on territory in a clearcut in extreme western Moore County, N.C., about 4 miles southwest of Spies. Harry LeGrand noted the bird on 24 April. At the Savannah River Plant, Barny Dunning and Bryan Watts found about 80 birds at 25 sites. These observers found single nests at this area and in Francis Marion National Forest, S.C., during the spring.

LARK SPARROW: Jay Carter and Jackie Lape saw one south of Emery, Montgomery County, N.C., on 15 May. This community is located in the Sandhills, where a few pairs have been found breeding in recent years; thus, this bird might have been on its breeding grounds. Definitely a migrant was one seen at Pea Island on 1 May by John Fussell and John Wright.

GRASSHOPPER SPARROW: East of the previously known summer range was one reported singing at Voice of America Site B in northwestern Beaufort County, N.C. David Wright and Taylor Piephoff noted the bird, along with a few Henslow's Sparrows (which are common at the site), on 30 May. This species may have wintered at a clearcut field near Gull Rock, Hyde County, N.C., as John Fussell saw one on 3 March and two on 11 March.

HENSLOW'S SPARROW: John Fussell and Allen Bryan flushed two birds from a clearcut field near Gull Rock, N.C., on 11 March.

WHITE-THROATED SPARROW: A very late individual was seen at a feeder near Rosman, N.C., on 3 June by Norma Siebenheller.

WHITE-CROWNED SPARROW: A late migrant was seen by Ruth and Jerry Young at Black Camp Gap in Great Smoky Mountains National Park, N.C., on 14 May. A good coastal count was five adults seen at Eagle Island near Wilmington on 29 April by Sam Cooper, James Parnell, and Hal Bain.

YELLOW-HEADED BLACKBIRD: John Fussell saw a first-winter male near Fairfield, Hyde County, N.C., on 3 March.

RED CROSSBILL: The only spring report was a male seen in I'On Swamp near Charleston on 26 March by Perry Nugent.

EVENING GROSBEAK: Rather late for the Outer Banks were two still present at a feeder in Buxton on 6 May, as noted by Marcia Lyons.

* * * * *

CORRIGENDUM: In the Fall 1988 issue (Chat 52:85),"Briefs" for Northern Pintail and Eurasian Wigeon were accidentally merged. The correct entries, with 1987 dates, are:

NORTHERN PINTAIL: A male was rare at Crowders Mountain State Park, N.C., on 3 October (Paul Hart).

EURASIAN WIGEON: A male was noted by Ricky Davis and Harry LeGrand at North Pond on Pea Island on 22 October, and possibly the same bird was seen at South Pond on that refuge on 14 and 15 November by Davis and others. Very rare in South Carolina was a male at Magnolia Gardens near Charleston on 12 November, as seen by Charlie Walters.

BOOK REVIEWS

BRITISH WARBLERS

Eric Simms. 1985. New Naturalist Library series, William Collins Sons & Co. Ltd.; distributed by Penguin Books, 40 W. 23rd Street, New York, N.Y. 10010. Six color plates by Ian Wallace; 177 black-and-white photographs and line drawings, including sonagrams. Bibliography. Index. 432 p. Paperback, $27.95.

In many respects *British Warblers* resembles Hal H. Harrison's *Wood Warbler's World*, which treats the wood warblers of North America (for review, see Chat 51:64). Although Simms provides some very pleasant first-hand accounts of field experiences with the Old World warblers, his book includes many details that will appeal more to advanced bird students than to relatively inexperienced ones. The numerous sonagrams, graphs, tables, and maps of nesting territories combine to give the book an appearance of being far more technical than it actually is, but some passages (e.g. several pages on the song of a single species) may try the patience of even a dedicated reader. Simms' work provides a valuable summary of what is known about the Old World warblers that occur in Britain, and the work should attract a wide readership in Europe. Even though many American bird students may purchase *British Warblers* as a reference book, very few will feel compelled to read it all the way through.—Eloise F. Potter

ERIC HOSKING'S BIRDS OF PREY OF THE WORLD

Eric and David Hosking with Jim Flegg. 1987. Republished 1988 by The Stephen Greene Press, Lexington, Massachusetts; distributed by Penguin Books, 40 W. 23rd Street, New York, N.Y. 10010. Illus. in color. Index. 176 p. Hardcover, $19.95

Those who take pleasure in owning *Eric Hosking's Owls* (Pelham, 1982) will rush to the bookstore for this new work on the diurnal birds of prey. Many of the photographs by the Hoskings, father and son, are spectacular. The large-format book is beautifully designed, and the quality of the printing is excellent. One minor design flaw is that small-sized black type printed over relatively dark color plates is very difficult to read.

Although the authors carefully explain the descrepancies between British and American usage regarding such confusing terms as "buzzard," "hawk," and "sparrowhawk," the main text fails to note the adoption of American Kestrel instead of Sparrow Hawk as the common name for *Falco sparverius* in North America. The species list gives the new name for the American Kestrel but does not follow the current A.O.U. *Check-list* on the Black-shouldered Kite (formerly White-tailed Kite). Problems such as these are typical of books that treat families of birds on a worldwide basis. Fortunately, no one expects a book full of breath-taking photographs to be an authoritative reference on nomenclature.

The best parts of the text, in my opinion, are the Osprey account and the chapters on conservation and falconry. Many readers will be surprised by the authors' tolerant attitude toward falconers ("at the forefront of avian captive-breeding techniques"), but not by their condemnation of gamekeepers who routinely slaughter birds of prey.—Eloise F. Potter

THE COLLINS FIELD GUIDE TO THE MAMMALS OF AFRICA INCLUDING MADAGASCAR

Theodore Haltenorth and Helmut Diller. 1980. Republished 1988 by The Stephen Greene Press, Lexington, Massachusetts; distributed by Viking Penquin Inc., 40 W. 23rd Street, New York, N.Y. 10010. Illus. Hardcover. 400 p. $19.95.

The large mammal fauna of the African continent has fascinated Europeans throughout recorded history. Haltenorth's and Diller's field guide, translated from the original German by Robert Hayman and originally published by William Collins Sons & Co., Ltd. is now available for Americans. While it does not allow one to identify all the species of small mammals such as the multitude of shrews and mice, it does an excellent job of allowing the conscientious observer to name the larger species that one is likely (or unlikely) to encounter on a typical African safari. My one quibble is the tendency to use English names in the illustrations for the many subspecific forms of some mammals such as giraffes and zebras. Without reading the text carefully, one could be mislead into believing that these were different species of animals rather than different forms of a widespread species.

An uncommon feature for field guides is an attempt in the introduction to describe the history of the continent and its mammalian fauna. This necessarily requires a heavy recitation of the fossil evidence that has a particularly soporific effect on most of us, but can be particularly illuminating if you persist.

Even if you are not planning an expedition to the wilds of Africa, this guide can be a real help on any visit to a sizable zoological park. Most of these institutions are now attempting to simulate wild conditions for the display of their collected mammals, maintaining mixed herds in open fields. There are never handy signs and pictures enabling you to tell which ones are the Greater Kudus and which ones are the Wildebeestes. Now you can travel prepared and really impress the people around you by knowing the difference between a Grevy's Zebra and a Grant's Zebra —H. T. Hendrickson

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OUR COVER—Will Post submitted this photograph of neighbors representing the approximaltely 5,500 pairs each of White Ibis and Cattle Egrets that were nesting in the Green Island colony on Lake Marion, S.C. this summer.

Reappraisal of the Status of Gulls in the Carolinas

MICHAEL H. TOVE

One can hardly journey to the coast without encountering large numbers of gulls. Yet, as prominent and widespread as they are, the status of gulls in the Carolinas is still not well understood. In part, this relates to identification difficulties and often misleading descriptions in the field guides. At least some of the status changes in gulls occurring in the Carolinas are not the result of observer bias. In North America, there has been a widespread increase in gull populations (Conover, 1983; Spear, 1987; Tove and Fischer, 1988), in some cases resulting in the regular occurrence of species that previously occurred only as vagrants (Tove and Fischer, op.cit.). Potter, Parnell and Teulings (1980) indicated that five species of gull (Herring, *Larus argentatus*; Great Black-backed, *L. marinus*; Ring-billed, *L. delawarensis*; Laughing, *L. atricilla*; and Bonaparte's, *L. philadelphia*) occur regularly in the Carolinas. These species constitute the "basic five" that are widespread and generally common along our coastline, for at least a portion of the year. In addition, the Black-legged Kittiwake (*Rissa tri-dactyla*) has been listed as uncommon to fairly common October through March in the offshore waters of North Carolina (Potter, et al., 1980; Lee, 1986). Another ten species have been reported that were considered to be rare or accidental (Potter, et al., 1980; Lee and Potter, 1986).

The purpose of this paper is to review the records of these ten rarer species and update their status in the Carolinas. In addition, I have presented a table of relative seasonal abundance for all gull species, based on the available records and impressions of several knowledgeable field observers. However, the results presented should be taken only as approximations as studies that yield quantifiable data require long-term, systematic censusing, which has yet to be done in the Carolinas.

METHODS

Most of the data were gathered from the seasonal reports in *The Chat* ("Briefs for the Files") and *American Birds*. Because usable reports appeared in virtually every issue of these journals since 1970 and numerous issues before, I have elected to list citations only for records discussed in the text. These data were supplemented with unpublished sight records made by Derb Carter, John Fussell, Harry LeGrand and myself, primarily dealing with the more common species. Although I have attempted to critically review as many of the published reports as possible, not all could be evaluated and some that were included may be incorrect. Of the published reports that were sufficiently detailed to be evaluated, I found three that I consider to be misidentifications. These have been discussed under their respective headings.

For several species, I calculated a relative abundance (compared to Herring Gull) based on Christmas Bird Counts at Cape Hatteras 1981–1982, 1984–1987 (hereafter CBC relative abundance). I excluded 1983 from the survey because abnormally large numbers of gulls made thorough

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sorting impossible, resulting in distorted proportions. In preparing this paper, several individuals of the rarer species were observed. Although the main data base for the paper ends with the year 1987, I have included records after that date in cases where observations are significant. In some cases, species documentations were warranted and have been presented as an appendix.

SPECIES ACCOUNTS

During the past twenty years, there have been significant changes in the known status of gulls in the Carolinas. Five previously unreported species have been described and four others have been found to occur regularly (Table 1).

Table 1. Approximate number of individuals for nine species of "rare" gulls reported from the Carolinas (by ten year increments).

	SPAN OF YEARS					
SPECIES	BEFORE 1938	1938 1947	1948 1957	1958 1967	1968 1977	1978 1987
Franklin's			1		2	6
Little					12	59+
Common Black-headed				1	11	19
Common/Mew						1/1
Thayer's	3					
Iceland		1		1	7	45+
Lesser Black-backed					8	128+
Glaucous	4	1	1	5	16	59+
Sabine's					2	4

Franklin's Gull (*Larus pipixcan*)

There are nine records of this western species from the Carolinas, five in North Carolina. Of those, eight have occurred within the past twenty years (Table 1). In addition, Carter observed an adult at Cape Hatteras Point on 29 October 1988 (*Am. Birds* 43:301, pers. comm.). The records suggest that the species occurs as a migrant in spring (March through May) and fall (September, October), apparently with equal seasonal distribution (Table 2). Four of the records are from inland locations, two at lakes and two in agricultural fields. This is consistent with the normal distribution of this species (pers. obs.). In fact, the fondness this species has for agricultural fields in the West makes it the most likely "rare" gull to occur in that setting in the future. When occurring inland in the

Carolinas, Franklin's Gulls have not been associated with other species. However, observations from the coast (Carter and Fussell, pers. comm.) suggest that they occur in the company of Laughing Gulls.

Table 2. Monthly distribution through 1987 for nine gull species occurring in North and South Carolina. Individuals occurring more than one month, are listed in the month of longest occurrence or month of first occurrence when no month predominated.

	MONTH											
SPECIES	1	2	3	4	5	6	7	8	9	10	11	12
Franklin's			2	2	1				1	3		
Little	1	6	42+	13	1			1		2		5
Com. Blk-headed	4	3	5	1				1		3	2	12
Common/Mew												1/1
Thayer's [a]	1	3	1									2
Iceland	13	10	9	5						2		15
Lesser Blk-backed	21+	20+	25+	4				1	3	10	8	44+
Glaucous	13	17	11	4	7	1		2	1	1	4	32
Sabine's [b]			1		2				6	2		

[a] Includes 4 individuals seen during the 1988/89 winter near Morehead City, N.C.

[b] Includes 3 individuals seen in September and 1 in October 1988 from North Carolina's Outer Banks.

Little Gull (*Larus minutus*)

Unknown from the Carolinas prior to 1971 (Carter and Parnell, 1974), this species has been found to be quite regular in recent years in North Carolina with records of at least 71 individuals through 1987. Almost without exception, they have been found in close association with flocks of Bonaparte's Gulls. Based on observations by Fussell and myself from 1982 to present, from Morehead City to the Virginia line, Little Gulls occur at a rate of 1 per 1,500 Bonaparte's Gulls.

The dates of occurrence range from 20 August (*Chat* 43:99) to 21 May (*Chat* 49:109). However, they are most numerous from late February through early April (Table 2), when huge flocks of Bonaparte's Gulls are massing for their northward migration While the vast majority of records are from the Outer Banks, considerable scrutiny of Bonaparte's flocks from south of Ocracoke, N.C. is needed to establish the prevalence of this species further south. However, as the species has been recorded only once from South Carolina, it may be that their normal range does not extend that far. All but one of the records of this species are from the coast. The single inland report (Lynch, 1972) probably refers to an immature Black Tern (*Chlidonias niger*) and should be discounted (Lynch, pers. comm.).

Common Black-headed Gull (*Larus ridibundus*)

There are twenty records of this species from North Carolina and eleven from South Carolina, all occurring since 1967 (Table 1). The dates of occurrence are from 10 August (Cox, 1968) to 23 April (Wright, 1973) with the principal occurrence from December through March. Unlike Little Gull, the data do not indicate a particular locale where this species can be found predictably. Although this species has generally been found with groups of Ring-billed Gulls, that association may relate more to the abundance of Ring-billed Gulls in winter than any biological affinity between the two.

Common/Mew Gull (*Larus canus canus/L. c. brachyrhynchus*)

I make the distinction of Common Gull from Europe and Mew Gull from western North America because the two forms are distinguishable in the field (Lauro and Spencer, 1980), and the distributional origin of these birds and implications for occurrence in the Carolinas is significantly different. Both forms have been reported once each from Cape Hatteras, N.C. Lewis, Tove and LeGrand (1981) reported an adult "Mew" (=Common) Gull at Cape Hatteras Point on 31 December 1980 and Lewis (1984) reported a first winter Mew Gull at Hatteras Inlet on 27 December 1983. Of 23 records of Common/Mew Gulls from eastern North America (reported in *American Birds/Audubon Field Notes*), only seven have been identified to geographic form. Of those, five refer to Common Gull and two to Mew Gull, suggesting that Common Gull may be a little more likely than Mew Gull to reoccur in the Carolinas .

Thayer's Gull (*Larus thayeri*)

There are four reports of this species in the Carolinas through 1987 of which one is suspect (Tove, 1985). The remaining three are all from Cape Hatteras, N.C. An additional four individuals were seen December through February 1988-89 in Carteret County, N.C. (see Appendix). Of these seven individuals, the first was a bird in first winter plumage that occurred 27 December 1983 in conjunction with an enormous concentration of gulls in Hatteras Inlet (Tove, 1985). The next two included an adult found by John Fussell and John Wright on 18 January 1987 and a first winter bird photographed by Fussell on 1 March 1987. I observed different immatures of this species on 17 December 1988 about 4 km "offshore" from Morehead City and on 3 February 1989 at the Carteret Couty Landfill near Newport. Two adults were present at the Carteret County Landfill for at least the first week of February 1989 (Fussell and Carter, pers. comm.). In addition, two adult birds that were either this species or Iceland Gull were seen at Cape Hatteras Point on 27 December 1984 (*Am. Birds* 39:553) and 3 March 1987 (*Am. Birds* 41:418). An October 1971 report (Carlson, 1973) based entirely on the presence of a dark eye, probably referred to a subadult Herring Gull (Tove, 1985).

Iceland Gull (*Larus glaucoides*)

In spite of some 24 previous records, Fussell, Tove and LeGrand (1982) provided the first photographic documentation of this species (six individuals). Since then, there have been at least 31 additional records. Of the at least 54 records, only seven are from South Carolina. Based on CBC relative abundance, Iceland Gulls occur at a rate of approximately 1 per 8,500 Herring Gulls.

Iceland Gulls have been recorded in the Carolinas from 15 October (*Chat* 51:112) to 21 April (*Chat* 47:109), with the majority of records during winter. Although early winter appears to be the peak of occurrence, this may be an artifact of coverage in relation to the Christmas Bird Counts. Based on the field experience of myself and others, I suspect that more uniform censusing would reveal this species to be most common from mid-January through early March.

While the majority of records are from the coast, the species has occurred inland. In North Carolina, the most inland records are of single birds at Elizabeth City on 23 January 1983 (*Chat* 47:79) and on the Chowan river 4 April 1983 (*Chat* 47:109). In South Carolina, one was observed at Clemson from 3 to 9 February 1976 (LeGrand, 1978; & pers. comm.).

Lesser Black-backed Gull (*Larus fuscus*)

Lewis (1980) discussed the status of this species in the Carolinas but at the time of his reporting, there were only a dozen or so documented reports and the vast majority of sightings were of single birds. Since 1980, multiple sightings of Lesser Black-backed Gulls, particularly in the vicinity of Cape Hatteras, N.C. have increased (Fig. 1). To date, the greatest concentration recorded in the Carolinas occurred during the last week of December 1983 when a Menhaden (*Brevoortia tyrannus*) kill concentrated some 650,000 gulls in Hatteras Inlet. On 26, 27 and 29 December several observers and I sorted through the birds. Although 15 Lesser Black-backed Gulls were reported on the Cape Hatteras Christmas Bird Count (*Am. Birds* 38:559), I estimated that at least 22 individuals were present.

Of at least 136 records, eight are from South Carolina and in North Carolina, only 21 are from south of Ocracoke. Although the vast majority of sightings are from the coast, Lesser Black-backed Gulls have occurred inland, at least in association with estuarine waters. To date, the most inland sighting was of a bird at the Swanquarter, N.C. ferry slip, 31 December 1987 (R. Davis, pers.comm.).

The dates of occurrence are from 12 August (Marsh, 1986) to 26 April (*Am. Birds* 41:418), with a concentration of records from December through March (Table 2). Based on CBC relative abundance, Lesser Black-backed Gulls occur at a rate of approximately 1 per 1,700 Herring Gulls.

There are three recognized subspecies of Lesser Black-backed Gull, the most obvious plumage distinction being the mantle color in adults (Grant, 1982). The majority of birds appear to be the distinctly lighter mantled *L. f. graellsii* of Great Britain. Occasionally, very dark mantled individuals have been observed which may be either *L. f. intermedius* of Scandinavia or *L. f. fuscus* of northeastern Europe (Barth, 1973).

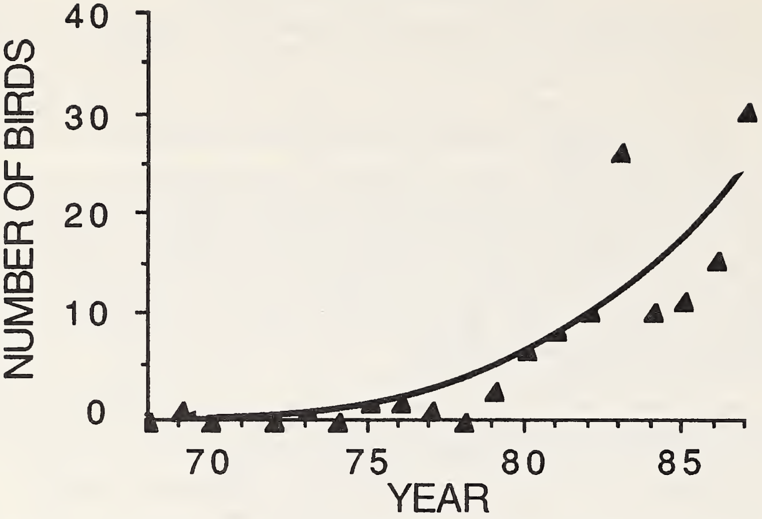

Figure 1. Annual totals for 136 Lesser Black-backed Gulls reported from North and South Carolina, 1969 through 1987 are represented by the solid triangles. The curved line represents the regression line of best fit (R=.88). Assuming the trend illustrated by these data continues for the next twenty years, it predicts that Lesser Black-backed Gulls will achieve CODE 4 ("fairly common") status within that time span.

Glaucous Gull (*Larus hyperboreus*)

Fussell, et al. (1982) reported that since the 1970's the number of sightings of this species increased significantly. To date, there are at least 93 records of this species, of which 12 are from South Carolina. While Glaucous Gulls have been reported from as early as 1 August (*Chat* 46:57) to as late as 6 June (*Chat* 42:17), their peak occurrence is from December through February (Table 2). Based on CBC relative abundance, Glaucous Gulls occur at a rate of approximately 1 per 4,600 Herring Gulls.

As in the case of other species, Glaucous Gulls are not limited to the coast. Individuals have been observed inland in North Carolina from Roanoke Rapids Lake (*Am. Birds* 26:749-750), Hurdle's Cut ferry landing on the Pamlico River (LeGrand, pers. comm.) and Oriental (R. Davis, pers. comm.). In addition, there are sightings from neighboring inland states (e.g., Tennessee, *Am Birds* 39:167). When occurring inland, this species has been found in close association with large bodies of water.

Sabine's Gull (*Xema sabini*)

There are seven records of this pelagic species (through 1987), six of which are from North Carolina (Table 1). With the exception of a single individual at Winston-Salem, N.C. (Culbertson, 1977), all records are from the coast with three observations from onshore and three from offshore.

during fall 1988 (see Appendix). With 22 other observers, I saw three immatures on 18 September about 40 km SE of Oregon Inlet and one immature bird was seen at Cape Hatteras Point 7-8 October (R. Davis and B. Lewis, pers. comm.). The data suggest two narrow windows of occurrence: May and September through early October. This is consistent with sightings elsewhere along the East Coast (*Am. Birds* regional reports, New York to Florida, 1976-1986).

Sabine's Gull and Black-legged Kittiwake are the only two species that occur in the Carolinas that have strongly pelagic habits. Because the coverage offshore is far less than along the coast, future work may reveal Sabine's Gull to occur more regularly offshore than the data now indicate.

Ivory Gull (*Pagophila eburnea*)

Although a single report of a "probable" Ivory Gull exists from North Carolina (Lee, 1980), I perceive problems associated with this report that raise doubts as to its validity. Seen poorly, the bird was described as being "small (Laughing Gull/Kittiwake size class)" with a bill that was "small, short and slender" (op. cit.). Ivory Gulls are slightly smaller but stockier than Ring-billed Gulls and have rather stout bills (measurements published in Cramp and Simmons, 1983; personal examination of specimens). Curiously, although the bill was described, the face was reportedly not seen. The contrast of a blackish face encircling the bill against a snow white head and body should have been obvious. Another problem was the lack of consideration of plumage aberrations in more common species, particularly leucism which can mimic the immature Ivory Gull plumage. Although a much more thorough study should be required to even place this species on North Carolina's Provisional list, this report has been listed as a sight record in the AOU checklist (1983:226).

STATUSES

Within the last decade, significant changes in the status of gulls in the Carolinas have occurred. Of these, the most dramatic include Lesser Black-backed, Little, Iceland, Glaucous and Common Black-headed. In each case, a species that was previously known only as a rarity, now occurs predictably and in the case of the Lesser Black-backed and Little Gulls, in substantial numbers.

To represent the status of gulls in the Carolinas, I have numerically redefined the traditional occurrence terms "abundant", "very common", "common", "fairly common", "uncommon", "very uncommon", "rare", "very rare", and "accidental". For CODES 1-6 ("abundant" to "very uncommon") the values represent the number of individuals expected in a single day on at least 80% of trips to a single locale. In addition, I consider a species as "regular" if it occurs with an abundance code of 6 or better.

CODE 1 ("abundant")—should see over 2,500 individuals per day.
CODE 2 ("very common")—should see 500 to 2,500 individuals per day.
CODE 3 ("common")—should see 100 to 500 individuals per day.
CODE 4 ("fairly common")—should see 20 to 100 individuals per day.
CODE 5 ("uncommon")—should see 4 to 20 individuals per day.
CODE 6 ("very uncommon")—should see 1 to 3 individuals per day.

CODE 7 ("rare")—occurs at a rate of 1 to 5 individuals per season for at least 8 of 10 years.

CODE 8 ("very rare")—occurs at a seasonal rate of not more than 8 individuals in 10 years for that season.

CODE 9 ("accidental")—occurs at a seasonal rate of not more than 2 individuals in 10 years for that season.

I have assigned abundance codes to each of the 15 species by season and state (Table 3). For each species, the status listed refers to that expected from its location of greatest abundance and under appropriate search conditions. This is particularly true for North Carolina where huge gull concentrations occur locally around Cape Hatteras and sporadically elsewhere. For example, Lesser Black-backed Gull is listed as CODE 5 (uncommon) during the winter in North Carolina, but this refers strictly to the Cape Hatteras area. Elsewhere along the coast, it is far less common. Iceland and Glaucous gulls are much more numerous from Nags Head to Morehead City than farther south. Little Gulls are found in association with the large flocks of Bonaparte's Gulls that occur along the Outer Banks.

DISCUSSION

Within the last ten years, a new picture of the status of gulls in the Carolinas has emerged. In addition to the "basic five" coastal gulls and offshore Kittiwake, at least two species, Lesser Black-backed and Little gulls warrant inclusion with the list of regulars from North Carolina. Both of these occur in substantial numbers each year, at least along the Outer Banks, and can be reliably found in winter. Iceland and Glaucous gulls also occur annually but in smaller numbers and generally require some effort to locate. In South Carolina, only the "basic five" and Kittiwake occur regularly. However, if the present population trend exhibited by the Lesser Black-backed Gull in North Carolina continues, it may not be long before that species occurs regularly in South Carolina as well.

These changes may relate, in part, to a long established pattern of increasing populations of gulls in the Carolinas and elsewhere. For example, prior to the mid-1930's, the Great Black-backed Gull was extremely rare, with only four records from North Carolina and one from South Carolina (Pearson, Brimley and Brimley, 1959; Sprunt and Chamberlain, 1970). In North Carolina, from 1933 onward, the species rapidly increased in abundance (Pearson, et al., 1959) to its present state as a fairly common to very common permanent resident. The data imply clearly that the Lesser Black-backed Gull is following a similar course and that Little, Common Black-headed, Iceland and Glaucous gulls may not be far behind. On the other hand, some of the apparent status changes may also relate to improved observer coverage. In recent yars, gull-watching seems to have emerged as a specialty subset of birding. In Utah, Tove and Fischer (1988) reported that improved observations in that state led to increased awareness of rarities but not overall numbers. In the case of some speceis (e.g., Little, Thayer's, Common/Mew) a similar scenario may exist in the Carolinas. However, other species, particularly the Lesser Black-backed Gull, appear to be undergoing true population explosion or range expansion and may become much more common in the future.

Table 3. Average relative abundace codes of seasonal occurrence for gull species in the Carolinas. The assigned codes are based on typical counts from the best observation areas and viewing conditions of each state and assume a full day of observation.

(state)	North Carolina				South Carolina			
SPECIES (season)[a]	Wi	Sp	Su	Fa	Wi	Sp	Su	Fa
Laughing	3[b]	2	2	1	3[b]	2	2	2
Franklin's		8		8		8		8
Little	6	5[c]		8		9		
Com. Black-headed	7	8	9	8	8	8		8
Bonaparte's	3	2[c]	7	5	4	4		5
Mew/Common	9							
Ring-billed	1	1[c]	4	2	2	3	4	3
Herring	1	2	3	2	3	4	5	4
Thayer's	8							
Iceland	7	7		8	8	8		9
Lesser Black-backed	5	6[c]		7	7	8	9	8
Glaucous	7	7	9	8	7	8		
Great Black-backed	2	3	4	3	5	5	7	5
Black-legged Kittiwake	5	6		6	6	7		7
Sabine's		8		8[d]				9

Numerical Codes: 1=abundant, 2= very common, 3=common, 4=fairly common, 5=uncommon, 6=very uncommon, 7=rare, 8=very rare, 9=accidental.

[a] Wi=Winter (December-February), Sp=Spring (March-May), Su=Summer (June-August), Fa=Fall (Septmeber-November).

[b] Numbers fluctuate greatly; abundant in early winter to very scarce in mid-winter.

[c] Numbers are substantially lower after mid-April.

[d] May underestimate current status by 1 or 2 numerical code levels.

In summary, North and South Carolina, with their extensive coastline, host substantial, year-round populations of gulls. Of 16 reported, the single report of Ivory Gull represents a probable misidentification. Of the 15 remaining species, ten occur regularly in North Carolina and six in South Carolina. Another one or two may also prove to be regular. The remainder are rarities which occur with variable frequency, most reliably in the vicinity of Cape Hatteras, North Carolina. In future years, the number of records and documented species from the Carolinas will undoubtedly grow. As they do, a more refined picture of our regional ornithology should emerge.

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APPENDIX

During Fall 1988 and Winter 1988/89 four immature Sabine's and four Thayer's Gulls were observed in North Carolina. Because these sightings significantly altered the status of these species as indicated by the study period data, I feel that specific documentation is warranted.

Sabine's Gull

On 18 September 1988, 23 observers, including Harry LeGrand and myself, observed three immature Sabine's Gulls about 40 km SE of Oregon Inlet. On 7-8 October 1988, Ricky Davis, Jim Parnell, and Bob Lewis observed an immature on the pond at Cape Hatteras Point. The following description is collective but represents field marks seen on each individual.

All four birds were small, bouyant-flying brown and white gulls that exhibited a striking upper wing pattern. This pattern consisted of a brownish back and wings and bold white triangular wedge formed by the inner primaries and secondaries. The blackish-brown outer primaries and primary coverts were notably darker than the secondary coverts and back. The tail on each bird was notably notched and accented by a black terminal bar. Although there are six previous records of Sabine's Gull from North Carolina, all of those were single individual sightings of adults.

Thayer's Gull

During the 1988/89 winter two immature and two adult Thayer's Gulls were observed near Morehead City, N.C. Not only do these four sightings double the number of reported Thayer's Gulls from the state, they also represent a "range extension" as far as the distribution of this species in the Carolinas is concerned.

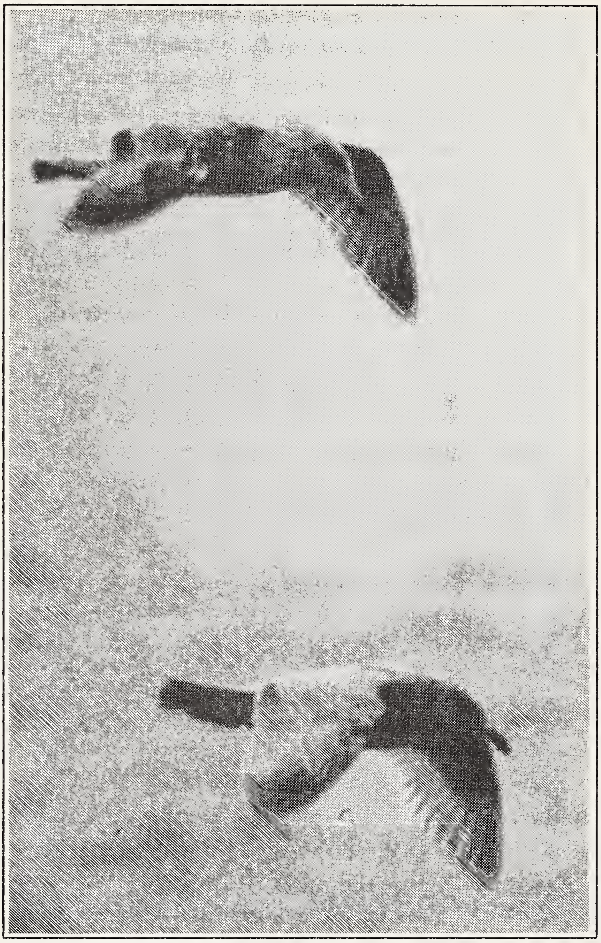
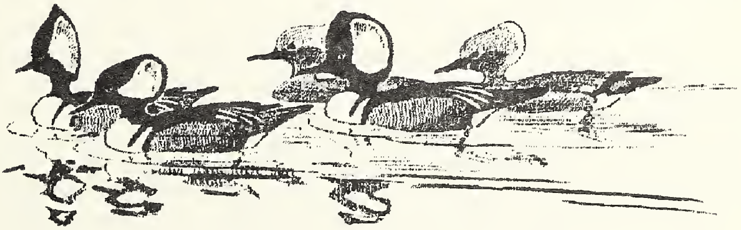


Figure 2. First winter Thayer's Gull with an immature Herring Gull at Cape Hatteras, N.C., on 1 March 1987. Note the Thayer's Gull's paler and uniform body color, smaller size, slightly darker outer primaries and "punched-in-eye" look. Photo by John Fussell.

On 17 December and on 3 February, I observed single immature Thayer's Gulls. The first occurred about 4 km "offshore" from Beaufort Inlet as it fed on a bread and oil chum behind the boat. The second, observed by Harry LeGrand, Derb Carter, Ricky Davis and I, was at the Carteret County Landfill. Although the former was a paler individual (comparable to Fussell's bird of 1 March 1987, Fig. 2) and only seen in flight, the following description accounts for both. The birds were uniformly light tan-brown gulls slightly smaller and more delicately proportioned than Herring Gull. There was very little contrast on the upper wing, particularly between the primaries and wing coverts. When perched (3 February bird), the folded primaries exhibited a bold white outlining to each feather. In flight from above, the darkest aspect of the bird was the brown (not blackish) tail. From below, the underwings, especially the primaries, were white with a narrow grayish border on the primary tips.

From the end of January through at least the first week of February 1989, two different adult Thayer's Gulls were also reported from the Carteret County Landfill. The first was seen by John Fussell (pers. comm.) and the second by Derb Carter (pers. comm.). The birds were identifiably different individuals because the former had a heavily streaked head and eye-patch while the latter had very little head streaking. Both birds were described as being smaller and notably daintier-billed than nearby Herring Gulls. Although the birds were in full adult plumage, the eyes were dark brown. Both observers reported that when perched, the folded primaries were not appreciable lighter than those of Herring Gull. In flight from above, the outer primaries were paler and with a much less extensive dark wedge than Herring Gull. From below, the wings, including the primaries, were white.



General Field Notes

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NOTICE

Publication of any unusual sightings of birds in the Field Notes or Briefs for the Files does not imply that these reports have been accepted into the official Checklist of Birds records for either North or South Carolina. Decisions regarding the official Checklists are made by the respective State Records Committees and will be reported upon periodically in *THE CHAT*.

Attempted Interspecific Food Piracy by Fish Crows of an Osprey

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I watched Fish Crows (*Corvus ossifragus*) attempt to steal a fish from an immature Osprey (*Pandion haliaetus*) from 1059 to 1119 h on 7 October 1988 at Mt. Pleasant, Charleston County, S.C. The weather was fair, the temperature was about 16°C, and a 8 km NE wind was blowing.

At 1059 h, an immature Osprey in Charleston Harbor flew past me with a fish locked in the talons of both claws, followed 30 m away by one silent Fish Crow. The Osprey landed on a small oyster bank 100 m away from me. The Fish Crow also landed on the oyster bank, 3 m behind the Osprey. I detected no external damage to the fish, suggesting the Osprey had caught the fish recently.

The Fish Crow was soon joined by two more, and all of them closely attended the Osprey, occasionally approaching it within 1-2 m. Three times, the same Fish Crow attempted to alight on the Osprey's back, without landing. The Osprey responded by threatening the crows, without releasing the fish, by opening the bill and thrusting its head and neck forward, and by feigning flight intention movements toward the crows. I could not hear either the Osprey or crows because of the distance and wind direction.

One to two Fish Crows left the oyster bank and were replaced by 1-2 more. I do not know if the original crow stayed. The Osprey began tearing off pieces of the fish and eating, but its feeding was regularly interrupted by crows, as described above.

Fish Crow numbers diminished to one, then none (briefly), then increased to three, until the group grew to seven, and finally twelve, I do not know if previously unsuccessful crows returned. Meanwhile, the Osprey continued to feed, with interruptions, until the middle of one side of the fish was eaten.

From 1115 until 1118 h, the crows became much more aggressive in their attempts to steal the fish from the Osprey. One crow repeatedly tried to hop onto the Osprey's back; the crow once touched the Osprey's head with its feet. Another crow directly approached the Osprey on the ground and was quickly repelled by the bill-snapping Osprey. Another crow pulled the Osprey's tail three times, each time with a visible tug. The Osprey reacted most strongly to this tail-pulling, lunging toward the nearest crows in the vicinity, but still not relinquishing hold of the fish. During these four minutes, the Osprey only tore off one piece of fish.

At 1119 h, the Osprey flew from the oyster bank with one claw grappling the partially eaten fish. The Osprey was followed by only one Fish Crow.

All but three crows left the oyster bank within one minute of the Osprey's departure, after they had investigated the area where the fish had lain. The crows probed the area with their bills, but I could not determine whether they ate any fish remains. The last of the three crows left at 1126 h.

Despite persistent efforts of Fish Crows to steal the fish from this immature Osprey, the larger and more powerful hawk successfully avoided food piracy by Fish Crows. The Osprey may have been more vulnerable to attempted food piracy because it was an immature. Also, the Osprey's feeding on the ground probably facilitated the Fish Crow's behavior. I did not see any of the Fish Crows mob the Osprey before the attempted food piracy. Brockmann and Barnard (1979) do not list the Fish Crow as a food pirate in their comprehensive review of avian food piracy, though Wetmore (*in* Fink, 1975) remarks that Fish Crows may 'dive-bomb gulls and terns, forcing these birds to drop their catches.'

Food piracy among Passeriformes is rare except for species of Corvidae, particularly members of the genus *Corvus* (Brockmann and Barnard, 1979). Thus, my observation of attempted food piracy by Fish Crows is not surprising. Species of *Corvus* pirate food from a variety of birds and mammals, including larger and more powerful species, and may employ tail-pulling to do so (Brockmann and Barnard, 1979, and references therein; Kilham, 1982, and references therein; Goodwin, 1976). Successful food piracy by corvids and other species may be correlated with the number of pursuing birds, though even one tail-pulling corvid can be successful (op. cit.; Bulkley, 1987).

Acknowledgments. I thank H. Hendrickson and W. Post for reviewing this note.

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Second Record of Little Gull in South Carolina

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On the morning of 23 March 1989 I observed an adult, winter-plumaged Little Gull (*Larus minutus*) in a small flock of Bonaparte's Gulls (*L. philadelphia*) foraging along the jetty at Huntington Beach State Park, S. C. First spotted at a distance of about 50 m., the birds passed within 7 m of me as I stood on the jetty, Total viewing time was 4 - 5 min. Observations were made with 7x binoculars. The following field marks were noted: black wing linings; pale gray back and dorsal wing surface with narrow white trailing edge on wing, including the outer primaries; white head with dark smudge on crown and small black spot behind eye; small, pointed black bill; white belly and tail; reddish feet. In addition, the bird was slightly smaller than the Bonaparte's Gulls and had rounded wing tips. The day was cool (40°F), windy, and overcast with intermittent light rain.

Johnstone (*Chat* 52:56, 1988) reported the first record of Little Gull in South Carolina on 14 March 1987 at sea off Charleston. LeGrand (*Chat* 53:47, 1989) states that "This gull appears regularly among the large flocks of Bonaparte's Gulls along the Outer Banks in late winter and early spring." Although Huntington Beach is about 400 km SW of Cape Hatteras on North Carolina's Outer Banks it would seem reasonable to expect more records of Little Gull in this area, especially in March.

Examination of Band Recoveries of Yellow-breasted Chats

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The Yellow-breasted Chat (*Icteria virens*) commonly nests in North and South Carolina, and readers of *The Chat* cannot fail to be interested in the life of the bird for which their journal is named. I obtained from the Bird Banding Laboratory a listing of all Yellow-breasted Chats encountered after being banded in North America before 11 July 1986. The birds were banded in three countries, including Canada, Mexico, and the United States. Twenty of the United States were represented, chiefly in the east.

Thirteen of the 68 (19.1%) recoveries were of birds found shortly after banding, with no migration season between banding and recovery dates. Of the remaining 55 recoveries, 46 (67.6%) were of birds found during the nesting season in the same 10 minute latitude/longitude block occupied during an earlier nesting season. A strong tendency is thus shown for Yellow-breasted Chats to return for successive nesting seasons to the same general locality.

Two of the 68 (2.9%) recoveries were of birds leaving the latitude/longitude block where they were banded to be found elsewhere in the state, leaving 7 (10.3%) Yellow-breasted Chats recovered outside of the state where they were banded. These recoveries show birds going from Maryland to West Virginia, from Massachusetts to New Jersey, from Indiana to Ohio, and from Ontario to Michigan.

Of the 68 recoveries of banded Yellow-breasted Chats, only one was of a bird banded in North and South Carolina. This bird was banded in North Carolina by Mrs. E. P. Teulings on 4 June 1967 and recovered on 13 May 1969 in the same 10 minute latitude/longitude block where it was banded, suggesting return of the bird to its nesting grounds.

Southward migration of Yellow-breasted Chats is shown best by a bird banded by Mrs. R. R. Larsen on 28 September 1965 in Massachusetts and recovered on 3 October 1965 in New Jersey, having traveled approximately 290 km southwestwardly in five days at a rate of 58 km per day. The time of southward migration is also shown as being during late September and early October.

The longest distance traveled by a banded Yellow-breasted Chat was by a bird banded in New Jersey on 12 September 1961 by Mr. and Mrs. W. Pepper and recovered in Mexico on 26 April 1962, having traveled approximately 2700 km. Also shown is the fact that chats may remain on their wintering grounds until late April..

Lark Bunting Sighting at Huntington Beach State Park, S.C.

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On 24 September 1988, I saw a male Lark Bunting (*Calamospiza melanocorys*), in basic plumage at the north end of Huntington Beach State Park, Georgetown County.

I discovered the bird at approximately 1600 h, on the road that cuts through the dunes to the jetty. When it first flew, the distinctive white wing patches were obvious. I was also able to observe the bird on the ground, where it appeared to eat grass seeds. The bird was grayish-brown in color, with streaked undersides. It was noticeably larger than the surrounding Savannah Sparrows, (*Passerculus sandwichensis*). The bill was a heavy, seed-eating type, and was blueish-gray.

I watched the bird for over an hour, using 7.5x binoculars and 20-45x zoom telescope. Viewing conditions were under an overcast sky, so I observed the bird from many angles and at a minimum distance of 30 m.

When flushed, the bird circled a 75 m section of road several times before returning to the grasses along the roadside. It appeared reluctant to leave the area, but I couldn't find it the following day. I did not hear the bird vocalize. This appears to be the fifth report for this species in South Carolina (Post and Gauthreaux, Contributions Charleston Museum: 18, 1989).

CBC Rare Bird Alert
(704) 332-BIRD

BRIEFS FOR THE FILES

HARRY E. LeGRAND, JR.
(all dates 1988)

COMMON LOON: Eric Dean observed one at Goldsboro, N.C., on 15 and 16 June, and Bob Holmes saw another at New Bern, N.C., on 5 June

LEACH'S STORM-PETREL: Always noteworthy was one seen off Charleston, S.C., on 29 June. by Dennis Forsythe and Bruce Krucke.

AMERICAN WHITE PELICAN: One was present on an island inside Oregon Inlet, N.C., for much of the summer. Haven and Minna Wiley saw it on 27 June and Allen Foreman reported in on several dates in July. Another pelican was notable on 7 August at Moore's Landing northeast of Charleston, S.C. (Dennis Forsythe).

DOUBLE-CRESTED CORMORANT: Herb Hendrickson saw a few at Lake Townsend near Greensboro, N.C., on 7 June and 15 to 18 July, plus another at nearby Belews Lake on 27 July.

ANHINGA: Merrill Lynch noted a good count of five adults soaring over NC 11 near the Roanoke River in Martin County, N.C., on 4 June, perhaps suggesting a breeding colony nearby. A good count of six birds was noted at a known breeding site at Jessups Mill Pond in southern Cumberland County, N.C., on 12 July (Philip Crutchfield).

AMERICAN BITTERN: Presumably early migrants were two at Goldsboro, N.C., on 28 July (Eric Dean).

LEAST BITTERN: Philip Crutchfield saw one, perhaps a breeding bird, near Fayetteville, N.C., on 6 July.

SNOWY EGRET: A few post-breeding birds were reported, as usual, from Jordan and Falls lakes in the Durham, N.C., area in July (Bill and Margaret Wagner, Merrill Lynch). Notable was an adult at a heronry at Bird Island on Lake Marion, S.C., on 25 June, as seen by Lex Glover, who also noted several Snowies in June at Lugoff, S.C.

REDDISH EGRET: An immature or sub-adult was seen at Corncake Inlet near Fort Fisher, N.C., for much of the summer, first being found by John Fussell on 1 July. An immature was somewhat less unusual at Bear Island, S.C., on 30 July (Perry Nugent, Charlie Walters).

CATTLE EGRET: Rather early for the Fall Line area of North Carolina was one seen by John Hammond near Carthage on 29 March.

BLACK-CROWNED NIGHT-HERON: Ricky Davis observed two immatures "barely able to fly" at Falls Lake near Butner, N.C., on 18 July. However, as the species has not been conclusively found breeding in the inland part of that state, the record can only be suggestive of nesting. Lex Glover noted an adult at a heronry on Lake Marion, S.C., on 25 June, another record not conclusive of breeding.

YELLOW-CROWNED NIGHT-HERON: Jonathan Steere observed one at Jordan Lake, Chatham County, N.C., on 29 July.

WHITE IBIS: The heronry at Boykin Mill Pond at Boykin, S.C., contained 3745 nests of White Ibis, as counted by Mark Dodd. A count of 21 immatures was notable at Goldsboro on 21 July (Eric Dean), and locally rare was an immature near Greensboro on 25 July (Herb Hendrickson).

GLOSSY IBIS: One to two birds were seen at Jordan Lake from 20 to 29 July (Maurice Graves, Steve Graves, and others); this is one of the rarer wading birds seen in the piedmont.

WOOD STORK: An excellent count for the Carolinas was 400-410 seen in Colleton County, S.C., on 19 June by Tom Murphy and on 21 June by Merrill Lynch. The earliest report of the year for the Sunset Beach, N.C., post-breeding site was 15 June, when one was noted by Philip and Jim Crutchfield.

GADWALL: Unusual inland in summer was a male seen near Fayetteville on 13 June by Philip and Jim Crutchfield.

REDHEAD: Rich Boyd noted a male on 27 June at an impoundment near Otway, Carteret County, N.C.

HARLEQUIN DUCK: Very late was an immature male photographed by Scott Hartley on the beach at Fort Macon S.P., N.C., on 23 and 24 May.

RUDDY DUCK: A pair, apparently not breeding, was seen by Eric Dean at Goldsboro as late as 4 July.

BLACK VULTURE: One was rare in Ashe County, N.C., near Todd, where noted by Harry LeGrand and Merrill Lynch on 19 June.

OSPREY: Inland nesting in North Carolina was reported from Lake Townsend near Greensboro (Herb Hendrickson), at Falls Lake (Bill and Margaret Wagner), at the Lake Norman dam (Taylor Piephoff), and at Jordan Lake (Robert Hader). An adult at Kerr Scott Reservoir in Wilkes County, N.C., was notable on 14 June (Simon Thompson).

BALD EAGLE: A subadult was most unusual on Ocracoke Island, N.C., on 25 July (John Fussell).

NORTHERN HARRIER: Several adults were seen during June at previously known or presumed breeding sites in North Carolina at Pea Island (Ricky Davis), Ocracoke Island (Haven Wiley, John Fussell), and Cedar Island (Fussell). Unusual in the mountains in summer was one seen on 3 July at Fairview, Buncombe County, N.C. (Ruth and Jerry Young).

SHARP-SHINNED HAWK: The only report during June was an adult seen mobbing a Red-tailed Hawk at Tryon, N.C., on the 19th by Simon Thompson.

COOPER'S HAWK: Merrill Lynch saw one in eastern Halifax County, N.C., on 9 June.

BROAD-WINGED HAWK: A late migrating group of 15 birds were seen in a kettle at Cedar Island, N.C., on 8 June (John Fussell). Unusual in coastal South Carolina was one seen along US 17 near Osborn on 21 June by Merrill Lynch.

GOLDEN EAGLE: An immature or sub-adult was seen by Jim and Tom Crutchfield over Hanging Rock mountain in western Watauga County, N.C., on 22 July.

AMERICAN KESTREL: This species is a very rare breeder in the coastal plain; thus, unusual was a pair seen feeding three fledglings on 3 June in a commercial area of Goldsboro (Eric Dean). Jay Carter noted that kestrels were seen regularly in the western part of Fort Bragg, Hoke County, N.C., this summer, where the birds are known to breed in open pine woods. Likely a non-breeder was a female seen on 28 June and 20 July at dunes at Huntington Beach S. P., S.C. (Lex Glover, Kevin Calhoon).

NORTHERN BOBWHITE: Rick Knight heard two calling on 21 June at Round Bald near Roan Mountain, Mitchell County, N.C. The species is scarce at such a high elevation.

BLACK RAIL: One was heard calling in mid-morning from a salt marsh on the southern shore of the bight at Cape Lookout, N.C., by John Fussell and Bob Holmes. The date was 5 July.

VIRGINIA RAIL: Rich Boyd heard one calling from a salt marsh near Otway, Carteret County, N.C., on 27 June; and a good breeding season count of six birds was heard calling near Wanchese, N.C., on 1 July by Harry LeGrand and Mike Tove.

AMERICAN COOT: The species again bred at the waste treatment ponds at Goldsboro, N.C., where Eric Dean noted that five pairs produced about 45 young during the summer.

LESSER GOLDEN-PLOVER: One was seen, still in winter plumage, at Pea Island, N.C., on the unusual date of 11 June by John Fussell. Fussell also saw another, in near-breeding plumage, near Ocracoke, N.C., on 25 July.

AMERICAN AVOCET: One of the few inland records for the Carolinas was a group of three avocets seen at a farm pond nine miles north of Hillsborough, N.C., on 10 July by Barbara Grubb. Along the South Carolina coast, where regularly seen at just two or three sites, were locally rare individuals at Huntington Beach S. P. on 29 June (Taylor Piephoff) and 19 July (Lex Glover party) and at Bear Island on 2 August (Dennis Forsythe).

LESSER YELLOWLEGS: John Fussell noted 14 birds at Bodie Island, N.C., on 25 June, a seemingly early date for such a number.

WILLET: Always a good find inland, two birds were observed by Lex Glover at Lake Marion, S.C., on 25 June.

SPOTTED SANDPIPER: Though the species has nested in the Carolinas on a few occasions, one seen at an impoundment near Otway, N.C., on 27 June was presumably a migrant (Rich Boyd).

UPLAND SANDPIPER: Although southbound migrants frequently appear by mid-July, one seen on 1 July was very early in North Charleston, S.C. (Steve Compton).

WHITE-RUMPED SANDPIPER: Twenty birds were still at Eagle Island near Wilmington, N.C., on 1 June as noted by Sam Cooper. Even more surprising were five seen by Harry LeGrand and Mike Tove at Pea Island on 2 July; the species is not known to be an early migrant in fall.

PECTORAL SANDPIPER: Presumably a very early fall migrant was one seen by John Fussell at the eastern end of Lake Mattamuskeet, N.C., on 27 June.

CURLEW SANDPIPER: Always of interest in the Carolinas, one in breeding plumage was found by Ricky Davis at Pea Island on 4 July. It was later seen by John Fussell on 13 July and by Taylor Piephoff on 29 July.

STILT SANDPIPER: Rather early for southbound migrants were three seen on 2 July at Pea Island by Harry LeGrand and Mike Tove.

RUFF: John Fussell observed a female (Reeve) at an impoundment at Pea Island on 11 June.

WILSON'S PHALAROPE: Despite the species being seen regularly along the North Carolina coast in early fall, South Carolina has very few fall records. One was seen by Lex Glover and Kevin Calhoon at a freshwater pond at Huntington Beach S. P., S.C., on 19 July. In addition to a few July records from Pea Island, notable in North Carolina was one seen inland at Jordan Lake on 20 July (Ricky Davis).

BONAPARTE'S GULL: A one-year-old bird was seen at Bodie Island on the unseasonable date of 25 June by John Fussell.

GREAT BLACK-BACKED GULL: Notable in midsummer in South Carolina were an adult and an immature at Huntington Beach S. P. on 20 July (Lex Glover, Kevin Calhoon).

CASPIAN TERN: Jim Parnell found 11 nests, apparently a record nest total for North Carolina, at an island inside Oregon Inlet on 7 June. One nest was also found on Clam Shoals in Pamlico Sound a few miles north of Hatteras on 28 June by Parnell.

ROSEATE TERN: Derb Carter observed one adult on 3 July, and Ricky Davis saw two adults on the following day, at Cape Hatteras point, N.C. Davis noted some courtship activities between the birds, but the birds did not nest at the site. Carter also saw two Roseates at Bald Head Island, N.C., on 14 July, but no breeding evidence was noted. [This Federally listed species has nested conclusively in the state only once—in 1973 near Cape Lookout (Soots and Parnell, 1975. *Chat* 39:20-21). However, it would not be overly surprising for the species to nest occasionally, as it does so both north (i.e., New York to Nova Scotia) and south (Florida and the Caribbean area) of the Carolinas.—HEL]

COMMON TERN: At Jordan Lake, two were seen on 20 July by Ricky Davis and seven were seen on 23 July by Merrill and Karen Lynch.

FORSTER'S TERN: The only inland sighting for the summer was one seen on 6 August at Falls Lake near Durham by Jeff Pippen and Jonathan Steere.

LEAST TERN: Bob Holmes noted nesting rather far inland at New Bern, N.C. On 26 June he saw 12 adults with three downy young, and he saw a nest with one egg two weeks later. Eric Dean saw a Least near Goldsboro on 18 June for a rare "non-tidewater" record.

SOOTY TERN: Jim Parnell found two nests on Vera Cruz Shoal, a newly-formed natural island between Ocracoke and Portsmouth islands, on 16 June; 828 nests of Common Terns and 45 Black Skimmer nests were also on the island. An adult again spent much of the summer at the tern colony at Cape Hatteras point, but no nesting was noted (many observers). Dennis Forsythe and Bruce Krucke saw one on a pelagic trip off Charleston on 29 June.

BLACK TERN: An excellent inland count of southbound migrants was 41 at Jordan Lake on 20 July (Ricky Davis).

COMMON GROUND-DOVE: Unusually far inland was a "vagrant" seen as close as five feet by Frank Enders at his farm in central Halifax County, N.C., on 1 July.

BLACK-BILLED CUCKOO: Late migrants were seen at Goldsboro on 7 June by Eric Dean and at Pea Island on 11 June by John Fussell.

Dennis Forsythe saw one, presumably an early fall migrant, at Bear Island, S.C., on 28 July.

WHIP-POOR-WILL: This species continues its apparent increase in the coastal plain in summer. Jeremy Nance and Greg Massey heard 14 Whip-poor-wills, but only two Chuck-will's-widows, in the Green Swamp in southeastern North Carolina, on 15 June. Harry LeGrand heard three birds along NC 130 near Old Dock, N.C., on 26 June. Perry Nugent and Mark Bevan noted a population calling in June and July near McClellanville, S.C.; Will Post heard one calling there on 26 August.

RED-COCKADED WOODPECKER: The only currently active site for nesting of the species in the North Carolina piedmont is at Pee Dee N. W. R. Jay Carter reported that a nest on the refuge had three fledglings during the summer.

ALDER FLYCATCHER: A nest with four eggs was found at Carvers Gap on Roan Mountain, N.C., in late June, fide Brenda Hull.

GRAY KINGBIRD: Scott Hartley saw one on 22 May on Bogue Banks near Atlantic Beach, N.C.

HORNED LARK: Rich Boyd and Wade Fuller saw two adults and four immatures near Moss Hill in southern Lenoir County, N.C., on 20 June. Philip Crutchfield noted two males near Wade, Cumberland County, N.C., on 20 June. Singing males were heard at three sites in the Oak City/Hamilton area of Martin County, N.C., on 30 May by Merrill and Karen Lynch; and Eric Dean reported the species during June at Cherry Hospital near Goldsboro. These sites lie near the eastern edge of the lark's breeding range.

TREE SWALLOW: Maurice Graves and Douglas Shadwick reported strongly suggestive evidence of nesting by the species at Jordan Lake, the first known breeding site in North Carolina outside the mountains. Adults were seen in late May and early June near snags in the lake, and on 18 June they saw 10 young birds in a cluster, along with several adults, at snags in the lake. John Fussell saw an early migrant at Fort Fisher, N.C., on 1 July.

BANK SWALLOW: This species is locally common in fall migration near the coast, as evidenced by counts of 700+ at Eagle Island, N.C., on 15 July (Jeremy Nance), 300+ there on 28 July (Sam Cooper), and 300 at Bear Island, S.C., on 2 August (Dennis Forsythe).

FISH CROW: Herb Hendrickson had counts of approximately 25 birds each at an apparent roost at Lake Townsend near Greensboro, N.C., on 4 and 22 June; and he saw a flock of 25+ between the lake and Country Park on 12 July.

COMMON RAVEN: Simon Thompson observed a pair at Saluda, N.C., along the edge of the Blue Ridge escarpment, on 20 July.

HOUSE WREN: This species was previously known to occur sporadically in the eastern coastal plain of North Carolina in summer, mainly in recently-burned pocosins. In Pender County, Sam Cooper surveyed Holly Shelter Game Land, which burned catastrophically several years ago; he noted 18 singing birds in 10 miles of driving on 6 June in the northern portion of the game land and 37 different singing birds in the southern portion of Holly Shelter on 17 June.

RUBY-CROWNED KINGLET: Rick Knight noted a singing male on Roan Mountain near the "rhododendron garden" at 6100 feet (1860 m), on 21 June. An intensive search by him on 27 June failed to turn up the kinglet. [There have been a few previous records of the species from high elevations in North Carolina in summer, but none are suggestive of nesting.—HEL]

CEDAR WAXWING: Simon Thompson found a pair nest-building in a white pine in Green Creek, Polk County, N.C., on 11 June. Ricky Davis saw two adults with an immature along I-85 at Falls Lake on 18 July, presumably indicative of breeding in the area. Tom Howard again noted the species on several dates in June and July at other places on Falls Lake farther eastward. Two were seen near Grissom, Granville County, N.C., on 11 June (Harry LeGrand); these could have been breeders or late migrants. Presumably migrants were one at Southport, N.C., on 5 June (Davis) and five at Pea Island on 11 June (John Fussell).

SOLITARY VIREO: Somewhat to the east of the previously known breeding range were two heard singing in open longleaf pine woods east of Montrose, Hoke County, N.C., on 30 June by Jay Carter and Laurie McKean.

YELLOW-THROATED VIREO: Harry LeGrand noted one singing in cove hardwoods along US 221 just east of Grandfather Mountain, N.C., on 18 June. The elevation, approximately 3900 feet (1190 m), is rather high for the species in the breeding season.

WARBLING VIREO: A remarkable coastal record was one seen and heard singing at Beaufort, N.C., by Larry Crawford on the unusual date of 25 July.

MAGNOLIA WARBLER: Rare and poorly known in the breeding season in North Carolina, a male was seen singing on 21 June near the rhododendron gardens on Roan Mountain by Rick Knight. He was unable to find the bird there on 27 June. [Conclusive breeding of the species has not been reported for North Carolina, though Magnolias are likely nesting in the state in a few of the spruce-fir forests in the northern mountains..—HEL]

BLACKPOLL WARBLER: A singing male was collected by Samuel Rodgers on the very late date of 15 June at Kingstree, S.C.

BLACK-AND-WHITE WARBLER: Lex Glover saw a female at Goodale S. P. in Kershaw County, S.C., on 15 June. The species is rarely reported from that state's Sandhills and coastal plain in summer.

AMERICAN REDSTART: Near the poorly defined southeastern border of the breeding range was one seen in Green Swamp, about 5 miles south of Bolton, N.C., on 11 June (Greg Massey, Jeremy Nance).

WORM-EATING WARBLER: This species is not as scarce in the North Carolina coastal plain in summer as previously believed. Jeremy Nance noted over a dozen singing on 11 June in a two-mile stretch of road, through dense 20 foot (6 m) high pine stands, in north-central Brunswick County. Also likely on territory were singing birds noted near Autryville, Cumberland County, N.C., on 14 June (Philip Crutchfield) and in eastern Edgecombe County, N.C., on 30 May (Merrill Lynch). In the central piedmont, where very rare to absent as a breeder, one was a window kill victim in Winston-Salem, N.C., on

5 July (Paul Spain), and one was seen at Lake Brandt near Greensboro on 22 July (Herb Hendrickson).

SWAINSON'S WARBLER: Haven Wiley reported that the species was present along Morgan Creek near Chapel Hill, N.C., for the sixth consecutive summer. He and his students at the University of North Carolina noted one pair plus two other singing males in 1988. One was seen on territory during June at Tryon, N.C. (Simon Thompson).

OVENBIRD: Near the edge of the breeding range were two singing in the Green Swamp, five miles south of Bolton, N.C., on 11 June (Greg Massey, Jeremy Nance).

LOUISIANA WATERTHRUSH: One was heard calling along the Waccamaw River, just east of Old Dock, N.C., on 26 June (Harry LeGrand). This is near the southeastern edge of the known breeding range.

CANADA WARBLER: A female seen on 4 June at Saluda, N.C., by Simon Thompson was likely a late migrant.

SCARLET TANAGER: This species continues to expand its breeding range eastward into the coastal plain. Philip Crutchfield noted a male along the South River north of Autryville, N.C., on 11 June and another male near Vander in Cumberland County, N.C., on 23 June.

INDIGO BUNTING: This species was apparently uncommon or rare above 5000 feet (1524 m) in elevation one to two decades ago, but numbers at high elevations in summer have recently increased. Rick Knight noted five singing males on 21 and 27 June on Roan Mountain between Carvers Gap and the rhododendron gardens.

PAINTED BUNTING: A male seen near Otway, N.C., on 27 June by Rich Boyd was near the eastern edge of the breeding range of the species.

DICKCISSEL: There were more reports of breeding in the Carolinas than usual, perhaps because of the severe drought in the midwest, causing those birds to wander in search of new breeding sites. Very unusual near the coast was a pair that nested at Mount Pleasant, S.C., in May and June (Perry Nugent et al.). Also near the coast, four singing birds were seen by Eloise Potter on 13 June about three miles west of the US 64 - US 264 intersection in mainland Dare County, N.C. Several birds were still present at this site in early July (Derb Carter), but conclusive breeding evidence was not found. Eric Dean observed three to four singing birds from 7 to 21 June at Cherry Hospital near Goldsboro. Taylor Piephoff had three males and three females in northern York County, S.C., on 28 June, and he found a nest with three eggs on 1 July.

BACHMAN'S SPARROW: Philip Crutchfield noted two birds on 6 July on Fort Bragg in southern Harnett County, N.C. Harry LeGrand heard a singing bird one mile west of Old Dock, Columbus County, N.C., on 26 June. There have been few if any recent published records from either of these counties.

GRASSHOPPER SPARROW: A good Sandhills count was four singing birds found by Philip Crutchfield at a landfill at Fort Bragg, N.C., on 9 July. The species was noted to be numerous in June at Cherry Hospital near Goldsboro (Eric Dean). Lex Glover reported two birds at Lugoff, S.C., on 22 June.

HENSLOW'S SPARROW: This species nests (presumably) in extensive clearcut pocosins that have small saplings and weeds present, but they must move to new sites as clearcuts become too overgrown. A site along NC 211 in the Green Swamp that had Henslow's a few summers ago is apparently no longer suitable for the species, but Jeremy Nance noted at least three singing birds in a "new" clearcut in north-central Brunswick County on 11 June.

SONG SPARROW: The species seems to be slowly increasing as a breeder in downtown Raleigh. Jim Mulholland and Harry LeGrand noted singing males at a number of sites, mainly in shrubs and brush along railroad tracks and streams, as well as in vacant lots. The species remains rare to absent at most "rural" locales in the eastern piedmont of North Carolina in summer; however, a few were found singing this summer at Falls Lake near I-85 (Bill and Margaret Wagner et al.). Peter Worthington found one on territory on two dates during the summer in northern Laurens County, S.C. In that state, the breeding range appears to cover only the upper piedmont, whereas in North Carolina it is present over most of the piedmont; in both states, it is found in the piedmont mainly in cities and towns.

BOBOLINK: Presumably non-breeding birds were seen in South Carolina on 13 June at Middleton Gardens near Charleston (Will Post) and on 14 June at Santee Delta Wildlife Management Area (Peter Yawkey). Another was late at Shallotte, N.C., on 5 June (Ricky Davis).

YELLOW-HEADED BLACKBIRD: A most surprising record was one seen along US 441, just below Newfound Gap, in Great Smoky Mountains National Park, N.C. Rich Boyd saw it on 29 July. Also notable was a female seen on 25 July near Fayetteville by Philip Crutchfield.

RED CROSSBILL: Allen Boynton saw at least 15 birds, all females and apparent immatures, on 22 June in Linville River gorge, N.C.

AMERICAN GOLDFINCH: Several pairs, plus many immatures, were seen at feeders in the New Bern area during the summer (fide Rich Boyd). This town is near the edge of the goldfinch's breeding range.

* * * * *

ADDENDUM: Information in the "Briefs" for Wilson's Warbler in *Chat* 53:25 was inadvertently omitted. Sam Cooper was the observer for the Wilmington record.

BOOK REVIEWS

THE COLLINS FIELD GUIDE TO THE BIRDS OF WEST AFRICA

W. Serle, G. J. Morel and W. Hartwig. 1977. Republished 1988 by The Stephen Greene Press, Lexington, Massachusetts; distributed by Viking Penquin Inc., 40 W. 23rd Street, New York, N.Y. 10010. Illus. Hardback. 351 p. $21.95.

If you have to bird in in this part of the world (the area from Morocco to coastal Angola) this is an essential field guide. Some of the illustrations (for example the water birds) are primitive compared to many of the field guides available for other geographic areas. On the other hand the illustrations of the passerine birds are reasonably good. If you think identifying the flycatchers in Central America is challenging, you should carefully examine the warblers (Plate 32) and the bulbuls (Plate 38) in this text. These are the sorts of birds that have driven ornithologists to drink.

All of the birds that occur in this region are not illustrated, but most are described in the text. A complete check-list of all species, including those of very local distribution or those that are very uncommon is appended at the back of the book. You may have to use additional sources (such as the Collins Guides to East Africa or Europe) to get complete descriptions of all possible species. Given the long history of involvement by different European nations in West Africa, there is also an appendix of equivalent vernacular names for the scientific names in four different European languages (English, Spanish, French and German). Interestingly, there are no non-European vernacular names listed.

The book is bound and presented in what has become the standard fashion for the American equivalents of the Collins Guides and will probably sell modestly well.—H. T. Hendrickson

THE COLLINS GUIDE TO THE BIRDS OF BRITAIN AND EUROPE

H. Heinzel, R. Fitter and J. Parslow. 1984. Republished 1988 by The Stephen Greene Press, Lexington, Massachusetts; distributed by Penquin Books, 40 W. 23rd Street, New York, N.Y. 10010. Illus. Paperback. 320 p. $15.95

As earlier reviews in this journal have indicated, William Collins Sons & Co. Ltd., the English publishers of nature guides for a generation of naturalists, have made arrangements to expand their audience by having their books republished in the United States by The Stephen Greene Press. The present volume has been the standard field guide to European birds since 1972.

Given the existence of a Peterson Field Guide to the Birds of Britain and Europe, it is inevitable that comparisons will be made. One of the first things that will catch the attention of American bird-watchers is the European penchant for placing corvids (the crows and their allies) at the end of the book, in keeping with the idea that these are the most highly evolved of birds. The other point that will catch your attention is that the geographic range of coverage of the Collins guide is much greater than that of the Peterson guide. This makes the Collins guide a much better investment if your travels include eastern Europe, the Middle-east and north Africa.

European range maps are printed with the species accounts and the illustrations, somewhat like the arrangement in the popular Birds of North America by Robbins, Bruun and Zim. This puts everything you need all together in one place, unlike the Peterson series where the text is in one place, the illustrations are clustered together in the middle, and the maps are all tucked away in the back. The Collins guide does have a separate list of range maps in the back showing the distribution of bird species in the British Isles.

The book is the right size for a field guide, well printed, well bound, flexible enough to flip around in the field and apparently tough enough to stand up to the kind of abuse that field guides always suffer. If you want or need a European bird guide, this is definitely the most important one to have.—H. T. Hendrickson

THE GREAT CYPRESS SWAMPS

John V. Dennis. 1988. Louisiana State University Press, Baton Rouge, Louisiana, photos by Steve Maslowski, Hardback. 142 pp. $29.95.

For folks who are charmed by the wonder and mystery of swamps, this book is almost as fascinating as the real thing. John Dennis clearly is such a person and has written this guide to the swamplands of the southeastern United States. The author makes it obvious at the outset that while all of the swamps are characterized by the presence of cypress trees, that may be the only trait that they share in common. Cypress swamps are remarkably diverse ecological entities.

From the Pokomoke River Swamp in Maryland, to the Big Thicket of Texas, Dennis gives a world class tour of our forested wetlands. You get remarkably clear descriptions of the geology and hydrology of each of the major swamp forms, as well as concise histories, a narrative of the interesting floral aspects, and a reasonably complete run-through of the more interesting animal life. Each entry also provides you with maps and directions so that you can make your own explorations. Nearly half of the chapters providing detailed descriptions of the various swamps concern those of North and South Carolina, thus providing a great deal of local interest to readers of *The Chat*..

Maslowski's photographic portraits exhibit the high quality that we have come to expect. I stumbled across only a few typesetting problems, and only one mis-captioned photo (a Common Moorhen that was identified as a Purple Gallinule). The maps were sparse but clear, and adequate to enable anyone who was motivated to find the swamp of his dreams. While few of us would consider this book a bargain, it is an extremely valuable addition to a swamp-lover's library.—H. T. Hendrickson

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THE CHAT

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OUR COVER—Rob Tucher submitted this portrait of a Gray Catbird taken at Great Swamp in northern New Jersey.

Nesting Success of Least Terns on two South Carolina Barrier Islands in Relation to Human Disturbance

ROBERT W. COWGILL

ABSTRACT

I studied the nesting of Least Terns on Kiawah and Seabrook Islands in 1986, and the main objective was to determine the effect of increased disturbance by humans on nesting success. The disturbances may have driven one colony to a more isolated region on the island. However, comparison of these data with earlier observations dating back to 1975 indicate that the major cause of unsuccessful nesting has been harsh weather. By comparison, the effect of disturbance by humans has been relatively minor.

INTRODUCTION

The Least Tern (*Sterna antillarum*) breeds in colonies on exposed beaches along the coast from Florida to Massachusetts. Increasingly, this habitat has been affected by human use of the beaches, and this disturbance has been considered a principal cause for the marked decline in the tern population (Fisk, 1975). For example, the species presently is designated "threatened" in South Carolina (Chamberlain, 1981). Fisk (1975) reported that Least Terns were first observed in 1957 to be using alternative nesting sites on flat roofs of buildings in Florida, and this adaptation had spread to Charleston County, S. C., by 1975 (Chamberlain, 1981). Least Terns also have adopted dredge spoil islands as nesting sites (Jernigan et al., 1978).

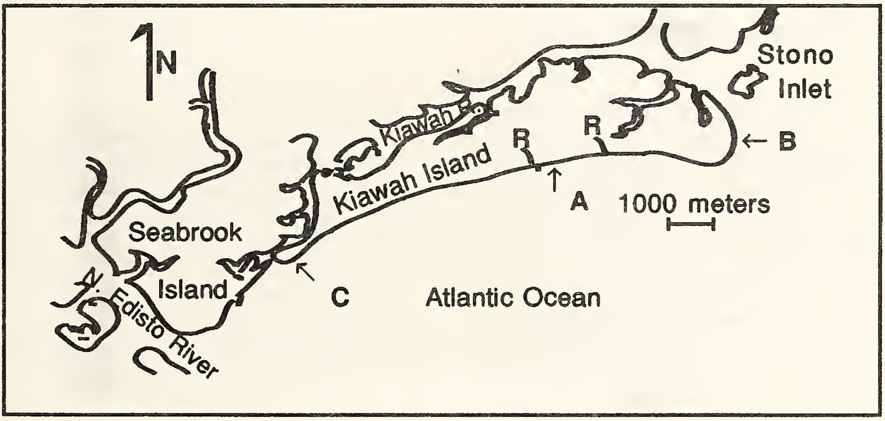

Figure 1. Diagrammatic map of the Kiawah-Seabrook area.

One aim of this study was to assess the effect of human disturbance on two Least Tern colonies on Kiawah Island, a barrier island 27 km south of Charleston, South Carolina. The colonies at sites A and C (Figure 1) were first described by Chamberlain and Chamberlain (1975) and later studied by Roch (1977) and Chamberlain (1981). I was interested in continuing the study of these two colonies because the extent of human disturbance has increased in recent years. The colony at site A was subjected to greater disturbance by both foot and vehicle traffic along the beach as the human population of the island increased. Site C was profoundly changed because the channel of the Kiawah River between Kiawah and Seabrook Islands was altered in February 1983. A new channel was dug, and the old channel was blocked by a dike of sand (Figure 2). By April 1983, site C had become a part of Seabrook Island. I hoped to investigate the effect of these topographic changes on the tern's choice of the site.

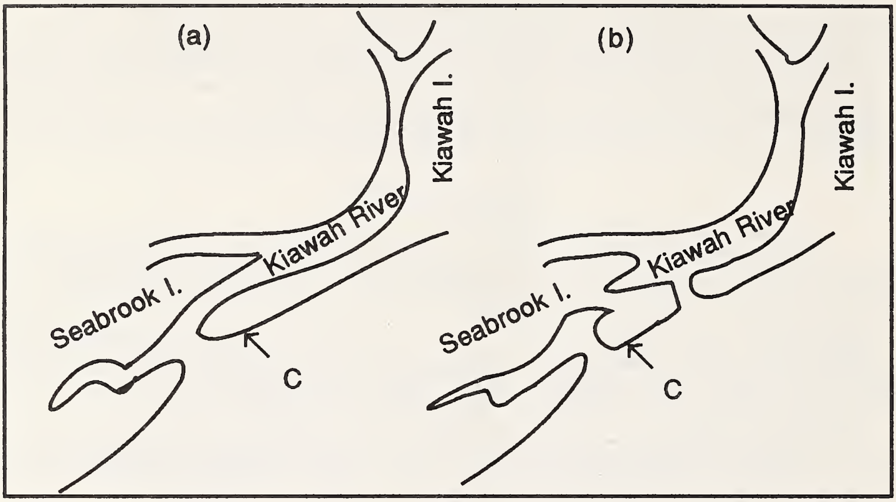

Figure 2. Diagram of the Kiawah-Seabrook area before (a) and after (b) rechannelization of the Kiawah River.

METHODS

I patrolled the colony areas from 26 April through 20 July with as much care as possible to minimize disturbance. Whenever possible the colonies were inspected in early morning or late afternoon to reduce exposure of chicks and eggs to mid-day heat. I recorded observations on tape to minimize time in the colony. I marked each nest with a 15 cm plastic stake placed 1 m to landward. Each stake was marked with nest number and date of discovery. Observations for each nest included number of eggs, amount of vegetation, and nest elevation. Observations on subsequent days included number of eggs, chicks, predation and other possible causes of loss. Predation was judged by tracks left by the predator.

RESULTS

Habitats of the colonies:

The location of the Kiawah colony (site A, Figure 1) changed in 1986. On 26 April there were 28 Least Terns loafing on the beach at site A, but no eggs were found in the fore-dunes as in previous years. On 2 May that area was flooded by a combination of spring tides, and a strong off-shore wind. By 14 May site A was abandoned and I found ten nests with eggs at site B (Figure 1). The colony area was about 75 x 350 m and was located between the Stono Inlet and vegetated dunes, beyond which was a shallow slough. The terrain was similar to that of the Seabrook colony as described below, except for slightly more vegetation and more low dunes of fine, unstable sand. These dunes acquired a crescent shape and were sand-driven so that they moved over the colony and frequently covered nests. This entire east end of the island from the slough to the inlet was created only in the past two to three years by accretion of sand brought down the Stono River and from the northeast by ocean currents.

The habitat of the Seabrook colony (site C of Figure 2b) changed significantly after the 1983 rechannelization. Changes in ocean and river-outlet currents, redeposition of sand, and changes in vegetation occurred after rechanneling. In 1986, the colony occupied an area of about 150 x 750 m that ran parallel to the ocean and was at least 15 m beyond the high tide mark. On the landward side it was bordered by vegetated dunes and a tidal slough (Figure 2b). The substrate consisted of fine sand with small amounts of shell (largely *Donax variabilis*). The terrain was flat except for some dunes that rarely exceeded 0.5 m in height. Vegetation covered less than 1% of the ground and was mainly bitter panicum (*Panicum amarum*) and seashore elder (*Iva imbricata*). Additional cover was provided by dead *Spartina alterniflora* and other debris brought in by the wind and waves. The colony was borderred on the east by vegetated dunes and on the west by a tidally connected slough that was the remnant of the old Kiawah River channel.

Extent of disturbance by humans:

The Kiawah colony at site A was about 3 km from the residential area and was not significantly disturbed by people on foot, but it was exposed to bicycle traffic. Also, colony A was situated between two beach access roads (marked R in Figure 1). Often at high tide the entire flock of terns would take flight when a vehicle passed. This traffic has increased yearly because of an increase in the number of residents with suitable vehicles and during a typical daytime period in June 1986, an average of seven disturbances per hour occurred. Even at night there was some disturbance from the Loggerhead Turtle nesting patrol that drove up and down the beach several times each night. Site B was much more sheltered from human disburbances. It was about 9 km from the residential area and was not accessible by vehicles except at low tide.

The amount of disturbance of the Seabrook colony caused by the rechanneling of the river was difficult to assess. The colony was only 2 km from the residential section of Seabrook Island. It had been marked with warning signs by the Seabrook Property Owners Association, but nonetheless, the colony was frequently crossed by people on their way to the beach, by their free-running dogs, and by saddle horses and security vehicles. No malicious damage was noted, but the terns harassed them all as potential predators.

Nesting success

Data for the numbers of eggs observed are given in Figure 3. The large loss of eggs at the Kiawah colony (site B) in the period between 3 June and 10 June resulted from a series of storms. Winds from the northeast leveled the low dunes and covered many nests. Then, exceptional spring tides produced water levels 0.67 m above the normal high tides of 1.69 m. This occurred in the period of 20-22 June, and both colonies were completely flooded.

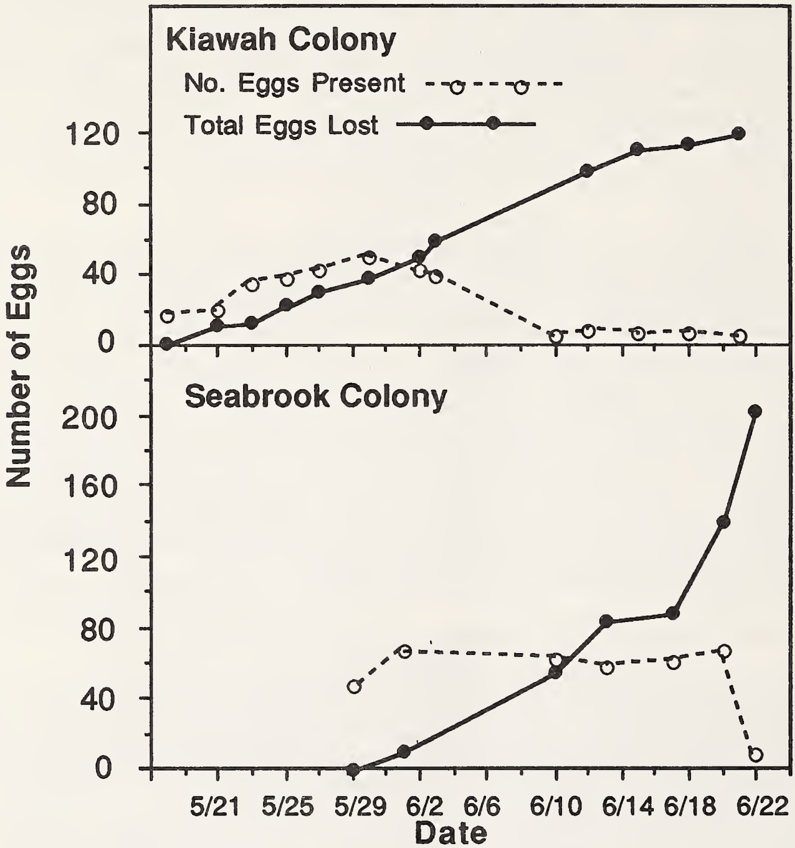

Figure 3. Record of eggs in the two colonies on various dates of observation.

The average number of eggs per nest at the two sites was 1.8 at Kiawah and 1.5 in the Seabrook colony. The hatching success was low for both colonies (Table 1), but some chicks did survive. Nine juveniles were seen in a flock of 42 Least Terns at site A on 16 July and six juveniles were in a flock of 30

Table 1. The Fates of Nests with Eggs

	Kiawah Colony		Seabrook Colony	
	No.	Percent	No.	Percent
Total Nests	66		135	
No. Nests Hatching	2	3%	12	9%
Probable Causes of Nest Loss				
Tidal overwash	25	38%	81	60%
Sand covered	25	38%	24	18%
Ghost Crab	5	8%	7	5%
Raccoon	2	3%	1	1%
Laughing Gull	2	3%	0	0%

terns at site C on 19 July. A comparison of my 1986 results with data from earlier studies is given in Table 2 and will be discussed below.

DISCUSSION

The Least Tern nesting colony at site A has been exposed to increased beach traffic in the past few years, but I observed nesting terns in 1984 and 1985 and I believe Least Terns have used this site annually since at least 1974. However, human disturbance may have been the principal cause for the movement of the colony to site B in 1986 although as noted above, site A was flooded by high tides on 2 May. Least Terns have strong colony site attachment and this site tenacity may mean that the birds will attempt to use an area even after the habitat becomes unsuitable (Austin, 1941).

Table 2

Historical record of the colonies at Site A (B in 1986) and Site C. The measure of success is qualitative. "Successful" denotes that the colony was not affected by major storms or high predation. "Unsuccessful" denotes that the colony was tidally flooded and/or covered by windblown sand.

	Site A		Site C	
Year	Number of Nests Present	Degree of Success	Number of Nests Present	Degree of Success
1975[1]	43	Unsuccessful	43	Unsuccessful
1977[2]		?	26	Successful
1979[3]	41	Unsuccessful		?
1981		?		Unsuccessful
1982		?		Successful
1984		Successful		?
1985		Unsuccessful		?
1986	31	Unsuccessful	43	Unsuccessful

Source of data:

[1] Chamberlain and Chamberlain, 1975

[2] Roche, 1977

[3] Chamberlain, 1981

All other years' data based on personal observation.

The colony at site C, which is now on Seabrook Island, has been subjected to more profound changes. Colony C had been observed in 1981 and 1982, when it was attached to Kiawah Island and the amount of human disturbance was low. The rechanneling of the Kiawah River in 1983 may be expected to have long-term effects on the nesting habitat. Certainly, the attachment of the colony to Seabrook Island has produced an increase in disturbance by humans, dogs, horses and vehicles. No information was available for 1983 or 1984, except that the terns did not nest on the residual spit of Kiawah Island shown in Fig. 2b. However, colony C was active in 1985 (pers. observation).

A comparison over a period of years is helpful when trying to assess the effects of human disturbance on nesting success (Table 2). In 1975 Chamberlain and Chamberlain reported both colonies were on low, exposed fore-dunes, and were destroyed by winds and tides. Roche (1977) compared reproductive success of Least Terns at Kiawah Island site C with a rooftop colony and a third on a spoil deposit in Charleston. From her data on numbers of nests, eggs and hatchlings, it appeared that all three colonies in 1977 were successful in the qualitative sense defined in Table 2.. The 1979 study of Table 2 compared differences in Least Tern colonies on disturbed (Kiawah Island) and undisturbed (Caper's and Cape Islands) barrier islands, with emphasis on the effects of human disturbance and predation on reproductive success. However, because the Caper's Island colony was totally destroyed by raccoons (*Procyon lotor*) and the other two colonies were partially destroyed by tidal flooding, it appears that human disturbance was relatively inconsequential. More recent observations during 1981-1986 document continued poor nesting success. This record suggests that increased human disturbance in the period 1975-1986 had not discouraged nesting. The numbers of nests in the colonies at any given time were not significantly different over this period (Table 2). Predation by other animals was minor for both colonies (Table 1). Historically, the main cause of unsuccessful nesting has been severe weather. The Least Tern has always had to contend with these conditions because of its tendency to nest on exposed beaches. Kotliar and Burger (1986) studied 26 Least Tern colonies in New Jersey on beaches and dredge sites and reported that this species frequently abandons nest sites, and generally has low reproductive success on beaches. The results of this study, in which I found terns to be successful in only three of ten colony years (Table 2), agree with their findings. The relatively recent use of alternate nest sites on rooftops and dredge islands is a significant change in behavior which may favor the survival of the species.

ACKNOWLEDGEMENTS

I thank W. Post for the encouragement to undertake this study and for valuable advice on its execution. The efforts of Al Batog of the Kiawah Island Company and Bob Cowan of the Seabrook Island Property Owners Association greatly facilitated the study. I thank Nancy Pringle of The Charleston Museum for typing several versions of the manuscript.

ADDENDUM

I monitored the Least Tern nesting on Kiawah and Seabrook Islands during the three nesting seasons of 1987-89.

At Site A on Kiawah Island, nesting continued to a minor degree (6 nests in 1987; 11 nests in 1988 and 16 nests in 1989). Motor vehicle traffic that would have passed this site was greatly restricted during the three years.

At Site B on Kiawah Island, no nests were found during the three years, although Least Terns were seen in the area each year.

At Site C on Seabrook Island, a maximum of 69 nests were observed on 15 May 1987 but the colony was completely destroyed by a severe storm on 4 June. One nest was found in 1988 and none in 1989.

No nesting on flat roof-tops was seen on Kiawah Island during the three years.

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General Field Notes

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NOTICE

Publication of any unusual sightings of birds in the Field Notes or Briefs for the Files does not imply that these reports have been accepted into the official Checklist of Birds records for either North or South Carolina. Decisions regarding the official Checklists are made by the respective State Records Committees and will be reported upon periodically in *THE CHAT*.

First Inland Nestings of Black-crowned Night-Herons in the Carolinas

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On 6 June 1989, Seals and Post found a nest of Black-crowned Night-Herons (*Nycticorax nycticorax*) on Green Island, near Eadytown, Lake Marion in Berkeley County, South Carolina. The breeding colony is 75 km from the Atlantic Ocean. The nest was in a 5 m-tall Red Maple (*Acer rubrum*), which also contained Cattle Egret (*Bubulcus ibis*) and Great Egret (*Casmerodius albus*) nests. The three young in the nest were about 20 days old. The nest was next to the main trunk of the maple, 5 m above ground and about 1 m from the nearest Cattle Egret nest. A regurgitant sample consisting of a Cattle Egret's foot was collected from one young. No adult was seen near the nest, although several had been seen on previous visits. On 12 June 1989 the Black-crowned Night-Heron young were seen in the limbs above the nest, and another regurgitant sample was collected. It contained a decapitated Cattle Egret nestling (about eight days old) and a Spiny Softshell Turtle (*Apalone spinifera*).

On 7 June 1989 Calhoon found a Black-crowned Night-Heron sitting on a nest in an ibis-heron colony at Boykin Mill Pond, Boykin, Kershaw County, South Carolina. The site is 165 km from the Atlantic Ocean. Glover returned with Calhoon on 13 June, and they found two chicks in the nest. Their eyes were open, and they appeared to be about one week old. The nest was in a

Bald Cypress (*Taxodium distichum*), about 2.1 m above water level. It was on the edge of the nesting colony, and they saw no other nests in the tree, although Cattle Egrets and Little Blue Herons (*Egretta caerulea*) were nesting in neighboring trees.

Sprunt and Chamberlain (1949) implied that this species nests in the interior of South Carolina, although no documented records of a nesting are known (Post and Gauthreaux, 1989). Before the present records, the farthest inland that this species had been found nesting was Penny Dam, Fairlawn, Charleston County, about 25 km from the coast (Cutts, 1955). In South Carolina, Most Black-crowned Night-Heron breeding sites are near saltwater. The largest reported concentration of this species, 585 nests, was on Drum Island, Charleston County (Post and Gauthreaux, 1989). As yet, there appear to be no breeding records outside North Carolina tidal regions (D. S. Lee, pers. comm.). In Virginia several inland breeding records for Black-crowned Night-Herons exist: Danville (15 June 1951), Shenandoah Co. (June 1977), and Rockingham Co. (22 May 1981) (Kain, 1987). In interior, southwestern Georgia, the species was reported breeding in the Swamp of Toa, SW Dougherty County (Charles Erwin, pers. comm.), which is 160 km from the Gulf of Mexico, about the same distance inland as the Boykin Mill Pond site.

The present findings are significant in that they provide additional examples of the interior range expansion of colonial waterbird populations. Such populations have existed in interior South Carolina at least since 1968 (Post, 1970). They initially were composed mainly of Cattle Egrets and Little Blue Herons (Post and Gauthreaux, 1989), but now other species, which are usually associated with saltwater sites, are colonizing the large hydroelectric lakes of the interior (Belser and Post, 1987). We anticipate that Black-crowned Night-Herons will increase in the interior, as the colonies of other wading bird species become more common. The findings of this and other studies (Beckett, 1964; Kale, 1965; Wolford and Boag, 1971) imply that Black-crowned Night-Herons benefit by preying on the co-inhabitants of their breeding sites. Such intra-colony predation may be a factor that contributes to the successful colonization of the interior by the Black-crowned Night-Herons.

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Nesting Localities of House Finches Wintering in North Carolina

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I obtained from the Bird Banding Laboratory a listing of House Finches (*Carpodacus mexicanus*) recaptured after being banded in North Carolina. The listing involved 23 recoveries, of which one was a second recapture. The list was examined to determine to what states the birds go for the nesting season after being in North Carolina during the winter.

A House Finch banded in North Carolina by J. D. Copeland on 7 April 1983 was recovered in Pennsylvania on 2 June 1983, showing that at least some House Finches from more northern nesting grounds are still in North Carolina in early April. With no records available to determine the time of autumn migration to North Carolina, the winter season was arbitrarily set to start with December. Thus, the winter season was defined as covering the period December through April and the nesting season the period May through July.

Of the 23 recaptures, only 11 were of birds banded during the winter and recovered during the nesting season. Assuming that these birds constitute a representative sample of the winter population of House Finches in North Carolina, the distribution of these birds during the nesting season can be taken to indicate the percentages of the winter population of House Finces in North Carolina going to the different states for the nesting season. Thus, of House Finches in North Carolina during the winter, 54.5% go for the nesting season to Pennsylvania, 18.2% go to New Jersey, 18.2% go to Maryland, and 9.1% go to Virginia.

Clearly, a sample of 11 birds is much smaller than is to be desired. Pending the accumulation of more data, the figures given can be considered as a first approximation of the breeding distribution of our wintering House Finches.

A Scarlet Ibis or Hybrid White Ibis X Scarlet Ibis in South Carolina

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A pink ibis was seen on two occasions in the Charleston, S. C. area. The bird was first seen by Ann N. Mithoefer on the NW end of Sullivan's Island near Station 17 on 27 September 1987. On 29 September the bird was seen by Henrietta Evatt on James Island Creek. The ibis was foraging in the salt marsh and resting on a dock with 6-7 adult White Ibis (*Eudocimus albus*). Mrs. Evatt photographed the bird and a print has been placed on file at The Charleston Museum. Sidney A. Gauthreaux, Jr. reviewed the photographs of the pink ibis, and concluded that the bird was similar to the White Ibis X Scarlet Ibis (*E. ruber*) hybrids he observed in Flamingo, Florida in January 1983.

Hybridization was first known to occur in a colony of White Ibises in Greynolds Park, Florida, where Scarlet Ibis eggs were introduced from Trinidad in July 1961 (Bundy, Audubon Mag. 67:84-85, 1965; Zahl, National Geogr. 132:874-882, 1967). The first hybrids were pink and salmon colored.

In the overlapping ranges of the Scarlet and White Ibises in Colombia and Venezuela a natural hybrid population exists (Ramo and Busto, Col. Waterbirds 10(1):111-114, 1987). They recorded 40 mixed pairs and observed 14 mixed copulations between White and Scarlet Ibis from 1981 to 1984. Because these observations of mixed pairs were made in different locations over a period of years, this does not appear to be a rare event. Ramo and Busto reported that "the color of the Scarlet Ibis in the colonies varied from light orange to scarlet." They also commented that some white birds had scattered orange feathers and suggested that this was further evidence of hybridization. Currently Scarlet and White Ibises are hybridizing in a large flight cage at Disney World in Orlando, Florida (Palmer E. Krantz, pers. comm.).

It is possible that pink ibises are escaped Scarlet Ibises. According to Keith Bildstein (pers. comm.) Scarlet Ibises kept in captivity and fed inadequate amounts of ß-keratin turn pink., and these birds are often difficult to differentiate from the hybrids . Palmer E. Krantz (pers. comm.), in contrast, reports that escaped Scarlet Ibises are still very red and do not appear pink.

During spring 1989 a pink ibis was seen several times by University of Georgia researchers in the White Ibis nesting colony on Pumpkinseed Island in Winyah Bay near Georgetown, South Carolina and on one occasion the researchers observed a Scarlet Ibis (Tony DeSanto, pers. comm. and in prep.).

Swallow-tailed Kites Capture a Bat and Rough Green Snakes

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On 1 July 1989 at 1330 h we saw a Swallow-tailed Kite (*Elanoides forficatus*) flying along a tree line bordering a large cutover area just inside the gate to Fairlawn Plantation on Gerund's Bridge Road (SR 98), Charleston County, South Carolina. The kite was back-lit initially, but was in good light. Flying toward the east, the kite dove into the canopy, and reappeared, grasping in its talons a small brown bat with wings still flapping. Several times the kite reached down, and pulling at the bat, removed its wings, and then began consuming it in flight. Once, the remains were dropped, and retrieved in air. The bat was completely eaten on the wing. While the kite was eating this bat, we saw another bat flying around, which may have been flushed during the capture of the first one. We do not know the species of the bat that was captured.

On 22 July 1989 at about 1100 h, we were standing beside U.S. 17, near Awendaw, S.C., at the gate to the Charleston Kiwi Fruit Farm. The area across the highway is an old weedy pasture with trees along ditch banks. We saw four Swallow-tailed Kites flying in the distance, and as they came toward us, they crossed the highway and flew behind some trees. They returned after about five minutes. One kite had a Rough Green Snake (*Opheodrys aestivus*) that it was consuming in flight. These four kites flew around for about ten minutes. Two of them were calling in the manner of young begging for food. Again they went behind the trees of the kiwifruit farm. Next, one of the kites landed in the top of a large Loblolly Pine (*Pinus taeda*) to the left of the farm gate and directly above us. It had a whole rough Green Snake, which it draped over a branch. This bird appeared to be an adult that was accompanied by young kites. In all we saw six Swallow-tailed Kites during the thirty minutes.

Cedar Waxwing Breeding on the Lower Coastal Plain of South Carolina

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On 15 June 1968, Rodgers located a Cedar Waxwing (*Bombycilla cedrorum*) nest in a Water Oak (*Quercus niger*) in a suburban yard in Lane, Williamsburg County. The nest was 15 m high, near the end of a limb, in the outer canopy of the tree. Because of the nest's height, he was not able to examine the contents. However, on 30 June, Rodgers saw an adult Cedar Waxwing feeding a recently fledged young, The adults were feeding the young bird pieces of plums, which they obtained from a tree in a neighboring yard. Shortly thereafter, Rodgers reported his findings to E. M. Burton of the Charleston Museum, but received no response. However, he was able to document the breeding record by collecting one of the juveniles on 3 August 1968 in the vicinity of the nest site. The unsexed specimen is ChM #1988.12.004. This confirmed breeding record is cited elsewhere (Post and Gauthreaux, Contrib. Charleston Mus. 18, 1989).

The present record antecedes by 13 years the first confirmed breeding of the Cedar Waxwing in South Carolina (McNair and Gauthreaux, *Chat* 48:17, 1984). Although Cedar Waxwings have not been found nesting in the coastal plain of South Carolina before, they have expanded their breeding range throughout the southeast (McNair, *Migrant* 58:109-134).

We appreciate critical comments by D. B. McNair.

EDITORIAL

After two years as Editor of *The Chat*, I am taking this opportunity to thank many of the people who have helped me to learn this job and produce our journal. My prime motivation for doing so is that we have undergone major turnovers in the positions of Field Notes Editors in both states and without the experience and enthusiasm of each of these professionals, there would not have been a journal.

At my request, David Lee agreed to help with the North Carolina field notes to ease the transition between *Chat* editors. It was assumed on both of our parts that this would be an interim arrangement until the anticipated North Carolina Breeding Bird Atlas project, and the unanticipated work with the Navy and offshore oil exploration ate up all of his available time. During his tenure, Dave initiated a more formal review process of field notes, and we attempted to streamline the turn-around time in publication. In his letter of retirement dated December 1988, Dave expressed deep thanks to the people who had served as reviewers; Laurance Alexander, Steve Cardiff, Robert Dickerman, Donna Dittman, John Gerwin, Wayne Irvin, Harry LeGrand, Douglas B. McNair, Ted Parker, Jim Parnell, Dennis R. Paulson, Eloise Potter, Van Remsen, Ken Rosenberg, Tom Schulenberg, and Mike Tove. In particular the contributions of Doug McNair were noted. Since thaen he has continued to review articles and field notes.

William Post has been a most dependable supporter of the Carolina Bird Club's journal. Every time I thought I would never come up with enough material to produce an issue that would be close to on schedule, Will came through with what was needed. A large number of personal and professional factors have forced Will to ask that he be relieved of his responsibilities as South Carolina Field Notes editor.

Finding replacements for each of these people has not been an easy job. As many of you know, Doug McNair served as N. C. Field Notes editor during the summer, but found that he was unable to continue. I am extremely grateful for the help he was able to provide. I am even happier to announce that we appear to have found two volunteers to fill the voids that have been created.

Dr. Lynn Moseley of the Biology Department at Guilford College has agreed to take on the responsibilities in North Carolina, while Dr. Dennis Forsythe of the Biology Department at The Citadel will take up the duties in South Carolina. I look forward to a long and harmonious working relationship with each of these Field Notes editors, as well as maintaining that with Harry LeGrand who continues to act as editor of Briefs for the Files.

Finally, it is necessary to thank all of the authors who have contributed their manuscripts to make *The Chat*. As I have said before, without those written observations *The Chat* does not exist. If that sounds like a plea to "keep those cards and letters coming", you are right.

CBC Rare Bird Alert
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BRIEFS FOR THE FILES

HARRY E. LeGRAND, JR. and J. MERRILL LYNCH (guest compiler)
(All dates 1988 unless otherwise indicated)

RED-THROATED LOON: One at Jordan Lake, N.C., on 13 November was unusual inland (Ricky Davis).

HORNED GREBE: An unusual number for the North Carolina mountains was 18 at Lake Julian near Skyland, Buncombe County, on 20 November (Ruth Young).

EARED GREBE: One was seen at the Goldsboro, N.C., wastewater treatment plant from 14 to 21 September by Eric Dean. This may be the same bird seen at this location last fall.

NORTHERN FULMAR: Very rare from shore was a single bird seen over the ocean at Pea Island National Wildlife Refuge, N.C., on 10 October by Bob Lewis.

AUDUBON'S SHEARWATER: A good count offshore was 1500 seen on 18 September off Oregon Inlet, N.C., by Mike Tove and party. A good total for 10 November was 100+ off Charleston, S.C. (Dennis Forsythe).

WHITE-FACED STORM-PETREL: One was carefully studied by Allen Bryan and others on a pelagic trip off Oregon Inlet, N.C., on 27 August.

LEACH'S STORM-PETREL: Noteworthy was a single bird on a pelagic trip off Oregon Inlet on 3 September (Paul DuMont, et al.).

BAND-RUMPED STORM-PETREL: Paul DuMont and party saw two on 21 August and one on 3 September, off Oregon Inlet.

WHITE-TAILED TROPICBIRD: One adult provided spectacular entertainment circling over a boat off Oregon Inlet on 18 September (Mike Tove and party). This may be the latest date for the state. One was also seen off the South Carolina coast at Charleston on 24 August by D. Oakley.

AMERICAN WHITE PELICAN: One at Hatteras Inlet, N.C., in mid-November (several observers) may well have been the same individual seen at this location the past several winters. South Carolina sightings included one at Moores Landing, Charleston County, on 7 August (Dennis Forsythe, Donna Clark) and one at Cape Romain NWR, Charleston County, on 18 September (Lex Glover).

GREAT CORMORANT: Most significant was a single immature at the Goldsboro, N.C., wastewater treatment plant on 18 October seen by Eric Dean. Dean mentioned that the bird had "white on the lower belly" and "thin, pale yellow throat pouch". This is apparently the first thoroughly documented inland record for North Carolina. Single immatures were also seen at traditional locales at Cape Hatteras point, N.C., on 1 October (Marcia Lyons) and at Oregon Inlet on 17 and 18 September (John Wright, Russ Tyndall, et al.). Also of interest were three immatures seen on 20 August at Masonboro Inlet, N.C., by Sam Cooper; these may have summered. The only South Carolina report was a single immature at Huntington Beach SP, on 13 November (Dennis Forsythe).

DOUBLE-CRESTED CORMORANT: What must have been a rather strange sight was a flock of 50 seen at Tryon, N.C., on 4 October during a hawk watch (Simon Thompson). Will Post located the fourth breeding colony in South Carolina at Lake Moultrie during the summer; 37 active nests, some containing eggs, were found.

ANHINGA: The northward breeding expansion continues with a report of a pair with young at Whipping Creek Lake, Alligator River NWR, N.C., in August (Bob Noffsinger).

MAGNIFICENT FRIGATEBIRD: Always noteworthy was one seen flying over Sullivans Island, S.C., on 28 August (Herbert MacMurphy, fide Will Post).

GREAT BLUE HERON (WHITE PHASE): One at Jordan Lake, N.C., from 13 to 31 August (Jonathan Steere and many other observers), and one at the upper end of Lake Murray, S.C., on 11 November (Tim Kalbach) were very rare sightings for the piedmont.

GREAT EGRET: A good number inland was 150 at Jordan Lake on 26 September, as noted by Merrill Lynch.

SNOWY EGRET: This species is an uncommon to rare late summer visitor to piedmont lakes; peak numbers this summer were five at Falls Lake, near Durham, N.C., on 5 August (Ricky Davis) and three at Jordan Lake from 28 to 31 August (Merrill Lynch).

TRICOLORED HERON: Always noteworthy inland were one at Goldsboro on 10 August (Eric Dean), one at Jordan Lake on 14 August (Merrill Lynch), and one at Lake Murray, S.C., from 1 to 4 August by Tim Kalbach.

REDDISH EGRET: Rare visitors to the Carolinas were single immatures noted from July to 8 September near Fort Fisher, N.C. (Eric Dean, Merrill Lynch, Sam Cooper, et al.) and at a spoil area along the Savannah River, Jasper County, S.C., on 27 August (Lex Glover, Kevin Calhoon).

YELLOW-CROWNED NIGHT-HERON: One adult was seen on 18 November at Allison Creek, York County, S.C., by Dennis Forsythe.

BLACK-CROWNED NIGHT-HERON: One was rare at Jordan Lake on 2 August, as noted by Jonathan Steere and Bob Gluck.

WHITE IBIS: Noteworthy inland were 20 immatures at Jordan Lake on 20 August (Chapel Hill Bird Club) and six immatures at Falls Lake, N.C., on 5 August (Ricky Davis). Rather late was a single immature at Lake Mattamuskeet, N.C., on 27 November (John Wright).

GLOSSY IBIS: Inland records included eight at Jordan Lake on 14 August (Eric Dean), three at the Campbell Soup Company, Sumter County, S.C., on 4 August (Lex Glover), and one at New Bern, N.C., on 27 August and 4 September (Bob Holmes).

WOOD STORK: There were several reports this fall of singles or flocks outside of their "normal" range: one seen overhead at Sneads Ferry, Onslow County, N.C., on 15 August by Gilbert Grant; 12 seen in flight along I-26 in Orangeburg County, S.C., on 27 August by Robin Carter and George McCoy; and one seen soaring over Santee River delta, S.C., on 13 November by Robin Carter and Caroline Eastman. A significant concentration of 210+ was noted at National Audubon Society's Silver Bluff Sanctuary, Aiken County, S.C., in mid-August (fide Anne Waters).

FULVOUS WHISTLING-DUCK: Three were at Magnolia Gardens, near Charleston, S.C., on 25 November (Robin Carter, Caroline Eastman); eight were there on 1 December (Dennis Forsythe).

TUNDRA SWAN: Rare in the piedmont were four at Jordan Lake on 29 October, as observed by Joseph Covington and Harry LeGrand.

SNOW GOOSE: Eight blue-phase birds were seen at Savannah NWR, S.C., on 5 November (Steve Calver) with seven there on 24 and 25 November (Anne and Vernon Waters). A flock of 21 (about half blue-phase) were at Lake Hartwell near Fairplay, S.C., on 26 November (Sidney Gauthreaux, Robin Carter, et al.).

ROSS' GOOSE: Always a good find, one adult was at Pea Island from 11 to 26 November, as seen by Derb Carter, Mike Tove, John Wright, and others.

EURASIAN WIGEON: North Pond at Pea Island NWR continues to be the hotspot for this species. The species was first noted there on 9 October with up to four males noted on 12 and 13 November (Mike Tove , et al.). One male was also seen at Lake Mattamuskeet, N.C., on 25 November by Ricky Davis.

REDHEAD: A surprisingly large number inland was 110 at Lake Julian near Skyland, N.C., on 20 November (Ruth Young).

HARLEQUIN DUCK: One female was observed at the Oregon Inlet bridge on 13 November by Mike Tove.

OLDSQUAW: One male at Jordan Lake on 24 November was a good inland sighting (Ricky Davis).

SURF SCOTER: Unusual inland was an individual at Lake Wheeler near Raleigh, N.C., on 13 November (Ricky Davis).

COMMON MERGANSER: Somewhat early was a pair at Jordan Lake on 24 November, as noted by Ricky Davis.

TURKEY VULTURE: Unusual on the Outer Banks was one migrant seen at Frisco, N.C., on 17 October by John Fussell.

MISSISSIPPI KITE: Always of interest in the piedmont was a post-breeder seen near Lake Wateree, Fairfield County, S.C., on 10 September by Robin Carter and George McCoy.

GOLDEN EAGLE: A good record was one immature seen soaring over the Neuse River between Clayton and Wilson Mills, Johnston County, N.C., on 24 November by Leon Jernigan.

MERLIN: There were many inland records this fall: one found dead at Lake Norman dam, N.C., on 3 September (Dick Brown); one at Elgin, S.C., on 9 September (Lex Glover); one at Jordan Lake on 26 September (Merrill Lynch) and one there on 22 October (Douglas Shadwick); one at Tryon, N.C., on 4 October (Simon Thompson); one at Aiken, S.C., on 9 October (Peter Stangel); and one south of Goldsboro on 24 October (Eric Dean).

PEREGRINE FALCON: Most observers reported a poor coastal flight this fall. However, there were several records from inland sites: two quite early at Jordan Lake on 23 August (Bill and Margaret Wagner); one at Cherry Hospital near Goldsboro on 28 August and one at another site near that city on 6 September (Eric Dean); one at Jordan Lake on 26 September (Merrill Lynch); one at Tryon, N.C., on 4 October (Simon Thompson); one at Pungo Lake, N.C., on 12 November (Lynch); and two at the Savannah River Plant, S.C., on 20 November (Calvin Zippler).

BLACK RAIL: One was seen flying across a road through a marsh at Santee Coastal Reserve, Charleston County, S.C., on 7 October by Paul Rodewald.

SORA: Bill Wagner and party flushed five birds at the upper end of Jordan Lake on 1 October, giving an indication of how numerous the species can be at inland sites in suitable marsh habitat.

SANDHILL CRANE: Two adults were a good find at the Texas Gulf Sulfur ponds near Aurora, N.C., as seen by Sam Cooper and others from 4 to 17 November. Another crane was seen in flight and heard calling over Savannah NWR, S.C., on 5 November by Steve Calver.

BLACK-BELLIED PLOVER: At least one was present at Jordan Lake from 23 August (Clyde Sorenson) to 9 September (Bill and Margaret Wagner), and another was there on 12 October (Merrill Lynch). Singles were also notable inland at Cowans Ford Refuge near Lake Norman, N.C., from 16 to 19 October (David Wright, et al.) and at Falls Lake near Durham on 23 October (Harry LeGrand).

LESSER GOLDEN-PLOVER: There were numerous fall reports from North Carolina. Along the coast were two at the Wright Brothers Memorial at Kill Devil Hills on 16 September (Taylor Piephoff), two at the airport near Ocracoke on 11 September (Ricky Davis), singles at the New Hanover County Airport on 4 August and 1 September (Greg Massey, Kitty Kosh), one to two present on the University of North Carolina - Wilmington campus from 31 August to 23 October (Sam Cooper), and one at Bald Head Island on 16 October (Derb Carter). Inland in that state were one south of Raleigh on 28 August (Clyde Sorenson), several at Jordan Lake from 17 September to 10 October with a peak of four on the first date (Herb Hendrickson, Lynn Moseley, and party), one at Lake Townsend near Greensboro on 17 September (Herb Hendrickson), two at Charlotte from late September to 4 October (Heathy Walker, Taylor Piephoff), one in northern Mecklenburg County on 16 October (Piephoff), and one at Falls Lake on 23 October (Harry LeGrand). The only South Carolina report was of three at Lake Hartwell near Fairplay from 4 September to 23 October, with two still present on 13 November (Steve Wagner, et al.).

PIPING PLOVER: Seldom seen inland, three Pipings were found at Jordan Lake — two on the New Hope Creek arm and one near Farrington — on 14 August by Eric Dean, Gene Howe, Harry LeGrand, and Merrill Lynch.

BLACK-NECKED STILT: Philip Crutchfield and M. E. Whitfield noted an extremely late stilt at an impoundment in northeastern Pamlico County, N.C., on 27 October.

AMERICAN AVOCET: Locally rare were one seen at Eagle Island near Wilmington on 2 September (Sam Cooper, et al.) and two seen in northeastern Pamlico County on 27 October by Philip Crutchfield and M. E. Whitfield.

GREATER YELLOWLEGS: Rather late inland were two on 22 November at Cowans Ford Refuge near Lake Norman (Heathy Walker, Harriet Whitsett).

WILLET: This species is always noteworthy inland; thus, of interest were one at Falls Lake on 5 August (Ricky Davis) and two at Jordan Lake on 12 August (Bill and Margaret Wagner); with one remaining at Jordan to 14 August (Harry LeGrand, Merrill Lynch).

UPLAND SANDPIPER: Though regular along the coast in early fall, the species is rare inland at this season. Notable records were three seen by Eric Dean at Goldsboro from 3 to 18 August, one seen by Philip Crutchfield near Fayetteville on 30 August, and one seen by Ricky Davis at Jordan Lake on 30 August.

LONG-BILLED CURLEW: Coastal birds were seen at the eastern tip of Ocracoke Island, N.C., on 24 August (Albert Rad) and 11 September (Ricky Davis), at Fort Fisher, N.C., on 27 August (Merrill Lynch) and 5 September (Derb Carter, Eric Dean), and on Raccoon Key at Cape Romain NWR, S.C., on 18 September (Lex Glover).

HUDSONIAN GODWIT: The first piedmont record for North Carolina was made at Falls Lake, where one was carefully studied by Harry LeGrand and Debbie Mignogno on 11 September. Ricky Davis found two birds at this site from 12 to 15 September. The black underwing coverts were seen well on the birds to rule out other godwit species. Very rare away from the Outer Banks was one at Corncake Inlet near Fort Fisher, as seen by Derb Carter and Eric Dean on 5 September. Robert Abbott saw four on the western tip of Hatteras Island, N.C., on 31 August, and two were also notable at Cape Hatteras point on 16 and 17 September (Mike Tove party).

RUDDY TURNSTONE: The species was observed at Jordan Lake from 10 August to 7 September by Bill and Margaret Wagner, Merrill Lynch, and others; the peak count was 10 seen by Ricky Davis on 30 August. Elsewhere inland were single birds noted at Falls Lake on 5 August (Davis) and at Lake Hartwell on 4 September (Steve Wagner et al.).

RED KNOT: A notable count of 3000 knots was made by Lex Glover on 18 September at Bird Island in Cape Romain NWR. The only inland sighting was a single bird seen by Mike Tove at Jordan Lake on 30 August.

SANDERLING: An excellent inland count was 18 seen by Harry LeGrand at Jordan Lake on 7 September. The peak count at nearby Falls Lake was seven, on 29 September (Ricky Davis). Others inland were individuals seen on 1 August at Goldsboro by Eric Dean and on 13 August at Santee NWR, S.C., by Lex Glover and Kevin Calhoon.

WHITE-RUMPED SANDPIPER: The only piedmont sighting for the fall was one observed by Harry LeGrand at Jordan Lake on 29 October.

BAIRD'S SANDPIPER: There were perhaps more records for this species during the fall than during any previous year. Records in North Carolina were birds along the coast at Cape Hatteras point on 20 and 21 August (Derb Carter et al.) and again on 29 August (Robert Abbott), at Eagle Island near Wilmington on 25 August (Jeremy Nance, Sam Cooper), and at Bodie Island, N.C., on 31 August (Abbott). Inland in that state were birds seen at Winston-Salem on 8 August (David Disher, Hop Hopkins); Goldsboro on 19 August (Eric Dean); Jordan Lake from 28 August (Merrill Lynch, Harry LeGrand) to 5 September (Henry and Elizabeth Link), with two birds present on 29 August (Carter); at Pineville from 1 to 5 September (Taylor Piephoff et al.); and at Falls Lake on 11 September (LeGrand, Debbie Mignogno) and 15 September (Ricky Davis). The only South Carolina report was a rather late individual seen on 23 October at Lake Hartwell near Fairplay (Steve Wagner, Jack Dumbacher, Anne Lindsay).

PECTORAL SANDPIPER: Three birds were rather late on 26 November, as seen by Robin Carter, Sidney Gauthreaux, and others at Lake Hartwell.

PURPLE SANDPIPER: Locally rare was one seen at Oregon Inlet on 10 November by Derb Carter.

STILT SANDPIPER: Among the better inland totals were 42 at Falls Lake on 6 September (Ricky Davis), 12 at Jordan Lake on 18 September (Doug Shadwick), and six at Silver Bluff Sanctuary in Aiken County, S.C., on 10 September (Anne Waters et al.).

BUFF-BREASTED SANDPIPER: Inland sightings were of two birds at Lake Hartwell from 21 August to 7 September (Steve Wagner et al.); and single birds (all in North Carolina) at Pineville from 2 to 4 September (Taylor Piephoff, Heathy Walker, Harriet Whitsett), at Jordan Lake from 3 to 5 September (Merrill Lynch, Ricky Davis, Doug Shadwick), and at Falls Lake on 4 September (Harry LeGrand). Coastal records were of four birds at Cape Hatteras point on 20 August (John Wright et al.), with two there on 29 August (Robert Abbott); one at Fort Fisher on 5 September (Eric Dean); and three at the Citadel Mall in Charleston on 29 August (Charlie Walters).

RUFF: A second recent piedmont record of this species for North Carolina was made of an immature bird, described thoroughly, at Jordan Lake. Herb Hendrickson and Peggy Ferebee saw the bird on 1 September near the wildlife observation platform on the lake. Other records for that state were birds identified as "Reeves" (females of the species) by Jay Sheppard on Ocracoke Island on 1 September and by Sam Cooper and others at a pond near Aurora on 7 November.

SHORT-BILLED DOWITCHER: A good inland count of 44 was noted by Merrill Lynch and Harry LeGrand at Jordan Lake on 28 August.

LONG-BILLED DOWITCHER: An excellent total away from the coast was 75 birds seen and heard along the causeway at Lake Mattamuskeet, N.C., from 25 to 27 November (Mike Tove et al.).

AMERICAN WOODCOCK: One seen at dusk in Wilmington on 23 August by Jeremy Nance was notable for that area in late summer.

WILSON'S PHALAROPE: Notable numbers were present at Jordan Lake, with the species being reported by many observers from 20 August to 3 September, with an excellent count of six on the former date (Vaughn Morrison). Ricky Davis noted one at Falls Lake on 1 September and three there on 15 September, and Eric Dean saw two at Goldsboro on 29 and 30 August. The best counts along the coast were 10 at Pea Island on 21 August (Mike Tove, Harry LeGrand), five at Eagle Island on 31 August (Sam Cooper), and a remarkable 15 at the spoil pond in South Carolina near Savannah, Ga., on 17 September (Steve Calver).

RED-NECKED PHALAROPE: Though a reasonably common offshore migrant, totals in triple digits are uncommon; thus, notable was a count of 250 seen off Oregon Inlet on 20 August by the Mike Tove party.

RED PHALAROPE: Two birds were quite early on 20 August, when seen in comparison with Red-necked Phalaropes off Oregon Inlet (Ricky Davis, Ken Knapp, Mike Tove).

POMARINE JAEGER: One of the few inland jaeger records was an immature Pomarine studied carefully at Lake Wylie, S.C. It was seen by Taylor Piephoff, David Wright, and others from 26 November into early December.

SOUTH POLAR SKUA: A most unusual record was one seen from shore, in flight over the surf, at Salvo, N.C., on 29 August by Robert Abbott. He provided a detailed description of the bird, and he observed it badgering a Herring Gull, which was about the same size but less bulky than the skua. Tropical Storm Chris, which came ashore in South Carolina on 28 August and provided strong onshore winds in North Carolina, was undoubtedly responsible for bringing the skua to shore. On a pelagic trip, one South Polar Skua was seen by Allen Bryan and others off Oregon Inlet on 27 August. A skua of undetermined species was seen at a distance on a trip off that inlet on 18 September by Harry LeGrand, Mike Tove, and others.

LAUGHING GULL: Immatures were seen inland by Merrill Lynch at Jordan Lake on 4 and 5 September and by Ricky Davis at Falls Lake on 6 September.

FRANKLIN'S GULL: Derb Carter saw an adult in winter plumage at Cape Hatteras point on 29 October for one of fewer than ten records for North Carolina.

BONAPARTE'S GULL: Very early records included single birds inland at Goldsboro on 12 August (Eric Dean) and at Falls Lake on 1 September (Ricky Davis), as well as 12+ near the coast at Bear Island Wildlife Management Area, Colleton County, S.C., on 28 August (Lex Glover, Kevin Calhoon).

LESSER BLACK-BACKED GULL: This species appears to be increasing in the Carolinas and is being seen earlier in fall than previously. An adult was seen by Marcia Lyons on 29 August at Cape Hatteras point. At the Cedar Island, N.C., ferry terminal, John Wright and others saw one bird on 24 September and two on 22 October. Clyde Sorenson saw an adult at the western end of Bogue Banks, N.C., on 7 October. Rather far inland was one seen by John Wright at a ferry landing near Aurora, N.C., on 19 November. The only fall report from South Carolina was one photographed [slide seen by this editor — HEL] by Paul Rodewald at Litchfield Beach on 3 and 7 October.

CASPIAN TERN: The best counts inland, where generally an uncommon migrant at the larger lakes, were 34 at Falls Lake on 6 September (Ricky Davis) and 11 at Jordan Lake on 15 September (Bill and Margaret Wagner).

ROYAL TERN: A record inland high count for South Carolina was 25+ birds seen by Will Post at Lake Moultrie near Pinopolis on 29 August. The birds were obviously displaced there by Tropical Storm Chris, which hit the coast on the previous day.

ROSEATE TERN: Apparently all referring to the same individual, single adults were reported at Cape Hatteras point on 20 August (Derb Carter), 22 August (Paul DuMont), and 29 August (Robert Abbott).

COMMON TERN: The best inland count was of 10 birds seen on 26 September by Merrill Lynch at Jordan Lake. Remarkably late was one seen on 21 November on Salem Lake at Winston-Salem. The details provided by David Disher included "dark wedge on the upper wing", "solid dark cap with just a small amount of white creeping in at forehead", and "beak and legs were still red tinted and were not black".

ARCTIC TERN: This species is apparently a regular but rather rare offshore migrant, with usually just one to two birds seen at a time (as opposed to the Common Tern, which is often seen offshore, at times in considerable numbers). Single adults were carefully observed off Oregon Inlet on 20 August and 18 September by Mike Tove, Harry LeGrand, and others.

BRIDLED TERN: Tropical Storm Chris brought this species to the immediate coastline, where normally absent. A group of 15 to 20 was seen by Don and Pat Frey at Folly Beach, S.C., on 28 August; and one was picked up in weak condition on 29 August at Cape Lookout, N.C., by Scott Hartley and Jay Robinson. The best of many reports from North Carolina pelagic trips was 46 on 18 September (Mike Tove party), and Dennis Forsythe noted one off Charleston on the late date of 16 October.

SOOTY TERN: The species was seen on five of seven fall pelagic trips reported off Oregon Inlet, with the peak count of 11 on 3 September (Paul DuMont party). Others offshore were one off Charleston on 17 August (Dennis Forsythe) and another off Cape Fear, N.C., on 18 August (Sam Cooper). One noted at Broad Creek on Hilton Head Island, S.C., by George Jett on 28 August was undoubtedly brought to the island by Tropical Storm Chris.

BLACK TERN: Infrequently reported from the mountains, one was seen by Ruth Young at Lake Julian near Skyland, N.C., on 13 August. A very late individual was seen near Aurora, N.C., on 4 and 7 November by Sam Cooper and others.

BROWN NODDY: One was carried to Folly Beach, S.C., by the tropical storm, as it was carefully seen at rest with Bridled Terns on 28 August by Don and Pat Frey.

BLACK-BILLED CUCKOO: Surprisingly, just one fall report was received — one perched on a wire near Congaree National Monument, S.C., on 8 October (Peter Worthington).

COMMON BARN-OWL: Nests of the species are infrequently reported; thus, of interest was a nest with young in a duck blind (with a covered top) near Davis, Carteret County, N.C. Mark and Penny Hooper found the nest on 15 June.

SHORT-EARED OWL: Ricky Davis, Merrill Lynch, and Derb Carter saw an owl that flushed from pines along a road just west of Lake Phelps, N.C., on 25 November.

NORTHERN SAW-WHET OWL: Marcia Lyons reported one present in a yard in Buxton, N.C., in late fall, first having been seen on 1 November.

COMMON NIGHTHAWK: A notable count for the Fall Line area was 125 seen by Anne and Vernon Waters on 10 September at Silver Bluff Sanctuary, Aiken County, S.C.

RUFOUS (?) HUMMINGBIRD: One hummingbird with "reddish flanks" and "greenish-gold" upperparts, and with an incomplete orange-red gorget, was seen by Derek Carrigan at flowers at Granite Falls, N.C., on 19 October. A *Selasphorus* hummingbird, apparently a female, was present at Harriet Whitsett's feeder in Charlotte on 16 November and from 29 November into December. Kitty Kosh had an immature male *Selasphorus* hummingbird at her feeder in Wilmington on 9 October, plus an apparent female *Selasphorus* there on 14 October. Another immature male of this genus was present at a feeder in the Greenville, S.C., area from early October into December (Peter Worthington et al.).

OLIVE-SIDED FLYCATCHER: Always noteworthy in the Carolinas, one was seen in Winston-Salem on 8 October by Hartsell Cash and other members of the Forsyth Audubon Society.

YELLOW-BELLIED FLYCATCHER: Fall migrants, all in North Carolina, were observed at Pea Island on 31 August (Robert Abbott) and on 17 September (Mike Tove, Harry LeGrand, Merrill Lynch, Taylor Piephoff), at Wilmington on 16 September (Kitty Kosh), and in extreme eastern Halifax County, N.C., on 16 October (Merrill and Karen Lynch).

EASTERN KINGBIRD: Sam Cooper and Kitty Kosh reported a flock of at least 1000 birds roosting at Eagle Island on 26 August.

SCISSOR-TAILED FLYCATCHER: Rare and quite late was one seen near the jetty parking lot at Huntington Beach SP, S.C., on 6 November by Steve Wagner and others.

HORNED LARK: One noted singing at the New Hanover County, N.C., airport by Sam Cooper on 8 August was suggestive of nesting. Breeding by larks has apparently not been confirmed in the Carolinas within perhaps 40 miles of the coast.

NORTHERN ROUGH-WINGED SWALLOW: Late in departing were four birds seen by Merrill Lynch and Vaughn Morrison on 25 September at Goldsboro.

BARN SWALLOW: Eric Dean observed two at Goldsboro on 26 November, and he saw one daily through 2 December.

COMMON RAVEN: Simon Thompson reported two at Tryon, N.C., on 29 September and three at nearby Saluda on 11 October. The species has apparently not been reported breeding in Polk County; these birds might be post-breeders from a neighboring county.

RED-BREASTED NUTHATCH: A male was seen at Burrells Ford along the Chattooga River, Oconee County, S.C., on 21 August by Dennis Forsythe and Donna Clark. Unfortunately, the date is somewhat ambiguous as to whether the bird was on its breeding grounds or was an early migrant. However, the species was rare in the piedmont and coastal plain of the Carolinas this fall.

BROWN CREEPER: Remarkably early were single birds seen at Oriental, N.C., on 13 September by Dorothy Foy and at Pea Island on 16 and 17 September by Merrill Lynch and others.

BEWICK'S WREN: Merrill Lynch supplied numerous details of a Bewick's seen at a brushpile near Weldon, N.C., on 6 September. This species is seldom reported from the Carolinas any more, and the date is early for a fall migrant.

WINTER WREN: Early for South Carolina were single birds noted by Steve Calver at Savannah NWR on 8 October and by Dorothy Foy and Ricky Davis at Evelyn Dabbs' yard near Mayesville on 9 October.

SWAINSON'S THRUSH: Dorothy Foy banded one on the late date of 12 November at Oriental, N.C.

WATER PIPIT: John Wright reported a flock of 500+ roosting at a Voice of America site in extreme southeastern Pitt County, N.C., on 6 November.

PHILADELPHIA VIREO: Sightings from the region were rather limited this fall. However, quite notable was a group of four seen together in shrubs at North Pond on Pea Island on 17 September (Merrill Lynch, Mike Tove, et al.); Lynch saw two birds there on the previous day. Single birds were also reported from Asheville, N.C., on 22 September (Gail Whitehurst) and from Lugoff, S.C., on 28 September (Lex Glover).

BLUE-WINGED WARBLER: A good fall season count was four seen by Eric Dean on 28 August at Goldsboro.

GOLDEN-WINGED WARBLER: Of the seven or more reports for the season, the only one well east of the Fall Line was a male at Pea Island on 10 September (Ricky Davis).

LAWRENCE'S WARBLER: A male of this hybrid flew into a window and was killed at Tryon on 3 September, according to Simon Thompson. The specimen has been sent to the N.C. State Museum.

BREWSTER'S WARBLER: Robin Carter and Tom Hankins saw an individual of this hybrid along the Saluda River in Lexington County, S.C., on 5 September.

NASHVILLE WARBLER: One was somewhat early at Tryon on 30 August, as seen by Simon Thompson.

CHESTNUT-SIDED WARBLER: An immature banded by Dorothy Foy was early at Oriental, N.C., on 18 August.

PRAIRIE WARBLER: Ricky Davis, Derb Carter, and Merrill Lynch noted three birds on the late date of 25 November — two west of Lake Phelps, N.C., and one at Lake Mattamuskeet.

PALM WARBLER: An outstanding count of approximately 3000 Palm Warblers was seen by Bob Lewis on 10 October at the National Park Service campground at Salvo, N.C.

BLACKPOLL WARBLER: Peter Worthington observed a late migrant on 11 November at Fort Moultrie on Sullivans Island, S.C.

CERULEAN WARBLER: One seen by Derb Carter was quite late and very rare along the coast at Bald Head Island on 16 October. The other fall reports might relate either to migrants or to locally breeding birds: four at Tryon on 21 August and one on 30 August (Simon Thompson) and one at Caesars Head SP, S.C., on 22 August (Dennis Forsythe, Donna Clark).

AMERICAN REDSTART: Sam Cooper noted 1000+ redstarts, along with 1000+ Palm Warblers, at Bald Head Island on 22 September. Very late was a female or immature seen by Joan McKearnan on Roanoke Island, N.C., on 25 November.

LOUISIANA WATERTHRUSH: Of warblers that nest in the eastern United States, this is one of the rarest migrants along the coast. Quite notable were single birds seen at Greenfield Lake at Wilmington on 25 July and 1 September by Kitty Kosh, who found numerous Northern Waterthrushes there, by comparison. Practically never reported from the Outer Banks was a Louisiana seen on 10 September by Ricky Davis at Pea Island.

KENTUCKY WARBLER: Quite rare on the Outer Banks was one seen on Ocracoke Island on 11 September by Ricky Davis.

WILSON'S WARBLER: Notable for the coast were one at Pea Island on 10 September (Ricky Davis) and one at Magnolia Gardens near Charleston on 18 September (Dennis Forsythe, Donna Clark).

CANADA WARBLER: Rarely seen along the coast was one noted by Harry LeGrand at Bodie Island on 16 September.

WESTERN TANAGER: Lex Glover saw a male at Lugoff, S.C., on 8 September, and another was seen in the yard of G. and M. Donahue at James Island, S.C., on 14 September (fide Pete Laurie).

PAINTED BUNTING: Lex Glover saw a female at the home of Ferrell King on 13 August far inland in Camden, S.C.

DICKCISSEL: The only fall report, as usual, was of a bird on the Outer Banks, calling overhead and then landing in a bush, at Pea Island on 9 October (Ricky Davis, Bob Lewis).

BACHMAN'S SPARROW: One was singing as late as 10 September in a clearcut near Lake Wateree, Fairfield County, S.C., as noted by Robin Carter and George McCoy.

CLAY-COLORED SPARROW: Only two fall reports were made: single birds at Pea Island on 24 September (Randy Moore) and at Fort Fisher on 14 October (Sam Cooper).

LARK SPARROW: Of the six coastal reports for the fall, the only one from South Carolina was an adult seen at the spoil pond near Savannah on 27 August by Lex Glover and Kevin Calhoon.

GRASSHOPPER SPARROW: Strong evidence for nesting at Lugoff were adult Grasshopper Sparrows seen carrying food on 13 August (Lex Glover).

LE CONTE'S SPARROW: Always a good find was one seen by Lex Glover on 23 October near Mayesville, S.C.

SHARP-TAILED SPARROW: This species, at least the inland nesting races, migrates over the Carolinas but is seldom encountered away from tidal marshes. Notable inland were one seen on 7 October at Jordan Lake by Merrill Lynch, and one seen on the very late date (for an inland site) of 27 November in eastern Saluda County, S.C., by Tim Kalbach.

LINCOLN'S SPARROW: Surprisingly, there was just one report of a bird outside of a regular wintering site — one at a feeder of Ramona and Harry Snavely in Winston-Salem on 25 September.

SWAMP SPARROW: Seldom seen in the Carolinas before October, one was thus early on 27 September at Jordan Lake (Merrill Lynch).

LAPLAND LONGSPUR: A very good count of 45 birds was seen at First Colony Farms west of Lake Phelps on 25 November by Derb Carter, Ricky Davis, and Merrill Lynch. Five birds were present on 26 November at Cape Hatteras point (Mike Tove et al.), and as many as five were noted in November at the Charlotte Motor Speedway near Harrisburg, N.C. (fide

David Wright). Sam Cooper observed one at Fort Fisher near the ferry landing on 22 October.

SNOW BUNTING: Very rarely found inland, one was seen along the shore of Lake Wylie, S.C., on 26 and 27 November by David Wright, Taylor Piephoff, and others. Another was somewhat inland at Pamlico Point, N.C., where seen on 13 November by Philip Crutchfield and M. E. Whitfield. A few birds were reported also from the Outer Banks in late November.

YELLOW-HEADED BLACKBIRD: Adult males are seldom seen in the fall season, but one was noted by Steve Ryan at a feeder at Salvo, N.C., on 25 September. An immature male was a visitor to Bonnie Harris' feeder in Long Beach, N.C.; Bill Brokaw and Kitty Kosh saw the bird on 9 September.

BREWER'S BLACKBIRD: Robin Carter, Donna Clark, and Dennis Forsythe saw a male on 27 November near Townville, S.C., where it is a rather rare but regular migrant.

PURPLE FINCH: Dorothy Foy reported that a "brown" bird she banded (AHY age, U sex) on 15 January 1986 was recovered dead in Arden, Ontario, on 8 May 1988.

Book Reviews

STATUS AND DISTRIBUTION OF SOUTH CAROLINA BIRDS

William Post and Sidney A. Gauthreaux, Jr. Contributions from the Charleston Museum XVIII, Charleston, S. C. Illus. Index. xii =83p. Hardcover. $10.00

The study of South Carolina birds goes back to Catesby, Audubon, Bachman, and A. T. Wayne. From time to time over the years there have been published accounts of the state's avifauna. A landmark publication was Wayne's Birds of South Carolina (1910) which was updated in 1949 with the publication of South Carolina Bird Life by A. Sprunt and E. B. Chamberlain. The second edition (1970) of this book compiled by E. M. Burton brought the list up to 1969. The present annotated checklist is an attempt to update the 1970 list and so most of the data included were collected after 1969.

The authors recognize 374 species on the "definitive" list which meet fully the criteria of acceptance and another 13 species for which good documentation exists for fewer than four independent sight records. An additional 14 species have been introduced or have escaped from captivity and have not become established (= have not bred successfully for 10 years). There is also a "Hypothetical List" of 12 species. The criteria for acceptance on the lists have been clearly stated.

The front matter of the book outlines the guidelines for documentation and acceptance, as well as the definitions of the Occurrence and Abundance categories. These are in line with those adopted by several other state bird compilations. The state is divided into six geographical regions: Offshore, Lower Coastal Plain, Upper Coastal Plain, Lower Piedmont, Upper Piedmont, and Mountains. These are defined and shown on a map but there is no general description of the areas.

The species accounts are brief, seldom being longer than 10 lines. For the regularly occurring species the status in each of the five terrestrial regions is noted. The extreme dates of occurrence are given, as are egg dates for most of the breeding species.

The accounts do a good job of summarizing the distributional data in brief form. Even though the authors remark that the "Mountains area" has received considerable attention since 1970 examination of the distributional information given shows that there is much to be learned about the breeding birds of this extremity of the Appalachian system. It is noted that the counties of the extreme southwest have had "no serious ornithological inventory." I am not aware that South Carolina is currently planning a breeding-bird atlas project, but it would seem that with this checklist as a basis the time for such a project is at hand.

For many species a "Maximum" count is given. These counts usually come from Christmas Bird Count or Spring Bird Count data but are occasionally given in terms of densities from a breeding-bird census, or birds banded per 100 net-hours at a banding station. I wonder about the real utility of publishing these "maximum" data, which by definition are obtained on exceptional occasions. In several cases it is mentioned that a species is declining in numbers (i. e. Bachman's Sparrow) or has shown an increase in numbers or range (i.e. Barn Swallow, Fish Crow), but no information on population trends is given for most species. No habitat or other ecological information is given.

Of particular interest are the remarks about the new population of Dickcissels in the Coastal Plain and Piedmont, and a summary of what is known about Bachman's Warbler. But from the account in this book one would not realize the endangered status of the Red-cockaded Woodpecker. I was struck by the fact, that there is apparently no specimen of the Carolina Parakeet from South Carolina where it was once "abundant". The recent increase in pelagic trips off the east coast is reflected in the number of pelagic species recorded.

The book is graced by a number of pen and ink sketches of birds by John Henry Dick, almost all of which are of non-passerines. These are scattered throughout the book arranged in more or less the conventional order but it is thus somewhat disconcerting to have a Black Skimmer drawing in the midst of the warbler accounts and a Red-cockaded Woodpecker drawing above the Bobolink account.

South Carolina birders will welcome this useful summary of the birds of that area to date, and people from other states will also find much of interest in it.—George A. Hall

THE RIVER AS LOOKING GLASS & OTHER STORIES FROM THE OUTDOORS.

Craig Woods. 1988. The Stephen Greene Press/Pelham Books, distributed by Viking Penguin Inc. 40 West 23rd Street, New York, NY 10010. paperback 121 p. $6.95

Birdwatchers are not the only people who enjoy the great outdoors and few birdwatchers have written short stories that can match the likes of this collection by Craig Woods; a fisherman. Woods is not just a fisherman, he's a fly-caster. Based on the contents of these stories, he appears to be a pretty good fly-caster. He's an even better story teller.

Why in the world would people who are interested in birds want to read a book of short stories by some guy who admits to occasionally going out to shoot Woodcock? The answer is that here is a man who understands the fundamental interaction between humans and their natural surroundings. There's a quality to these stories that evokes memories of growing up; when the world could be made to go away simply by catching fish, or watching birds, or catching frogs. There are people here that we used to know, or wished we did.

You could probably sit down and go through this little book in a good solid evening of reading, but it would be a mistake. These are stories to linger over; to savor as a fine meal. I found that I didn't want to read more than two or three at a sitting because they needed time to incorporate themselves into my being. Some of them a serious. Some of them are totally outrageous. All of them are great.—H. T. Hendrickson

THE FLYFISHER'S 1990 CALENDAR

Ernest Schwiebert. 1989. Published by The Stephen Greene Press, distributed by Viking Penguin Inc., 40 West 23rd Street, New York, NY 10010. $10.95

The perfect companion piece to the preceding book of short stories is this calendar that is profusely illustrated with the natural prey of trout. These insects are the models that have inspired fly-tiers for the last hundred or more years. Frankly, my curiosity was aroused by knowing that there are such baits as Coachmen, Quills, and yes, Hendricksons. But there's more.

Schwiebert sums it up best in April. "Fishing is more than fishing." —H. T. Hendrickson

1990 THE BIRD IDENTIFICATION CALENDAR

John Sill. 1989. Published by The Stephen Greene Press, distributed by Viking Penguin Inc., 40 West 23rd Street, New York, NY 10010. $8.95

Are you looking for an appropriate seasonal gift to give your bird watching friends? Do you need an attractive wall calendar in your kitchen? This may be the answer to your problems. John Sills is a competent artist whose birds are both attractive and accurate. Each painting comes with some light commentary about the species portrayed. All are illustrated in conjunction with the months in which they can be found (somewhere). Fortunately, Sills is a much better than average painter because his commentaries on the Yellow-breasted Chat and Eastern Meadowlark reveal that he could not function as an effective systematist. — H.T. Hendrickson

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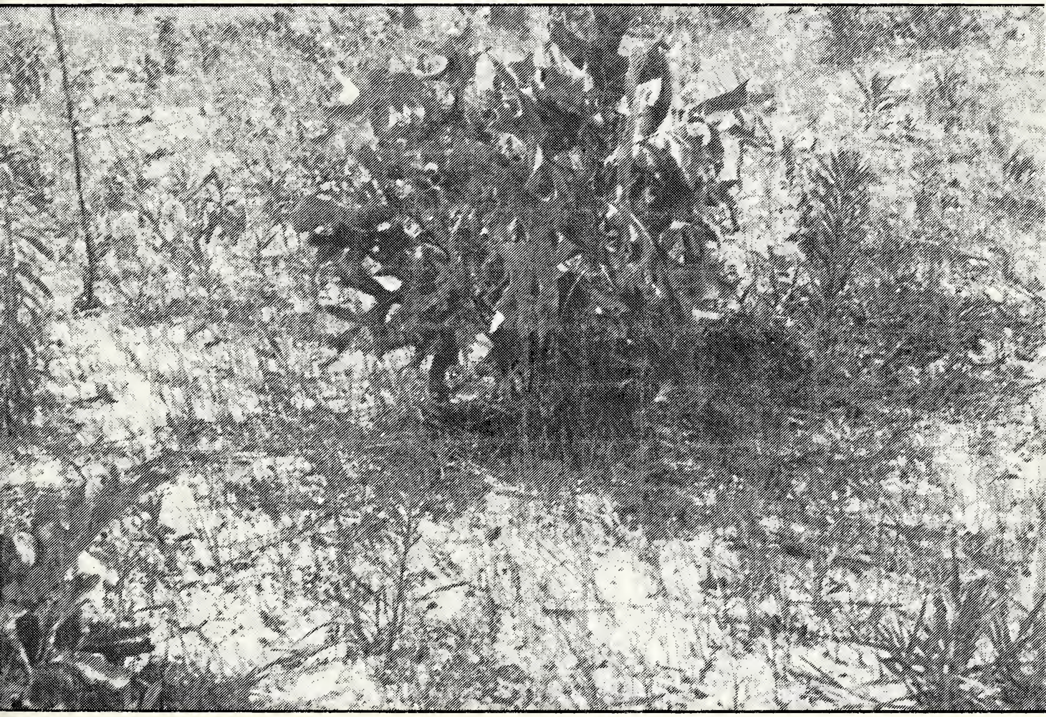

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CBC

OUR COVER—Douglas B. McNair photographed this Lark Sparrow nest at the base of an oak sapling in Scotland Co., N. C. (see article starting on page 16)

Notes on Piping Plovers Nesting at Cape Hatteras National Seashore during 1987

SAMUEL COOPER

INTRODUCTION

Piping Plovers (*Charadrius melodus*) are listed as endangered in the Great Lakes region, and threatened elsewhere (Federal Register, 1985). North Carolina is near the southern limit of the Piping Plover's regular nesting range (American Ornithologists' Union, 1983). The first statewide survey of breeding Piping Plovers revealed 40 pairs nesting in five counties during 1988 (Carter, 1989). Previous records along with the 1988 survey indicate that most nesting plovers are found between Cape Hatteras and Cape Lookout (Am Birds 37:979; Fussell, 1986; Carter, 1989; Figure 1). Previous Piping Plover work within Cape Hatteras National Seashore has been confined to surveys of nesting pairs (Golder, 1985 and 1986). While there has been considerable interest in locating breeding areas within North Carolina, there has been little effort to describe nesting sites or breeding success. Information on Piping Plover breeding success is important for the manage-

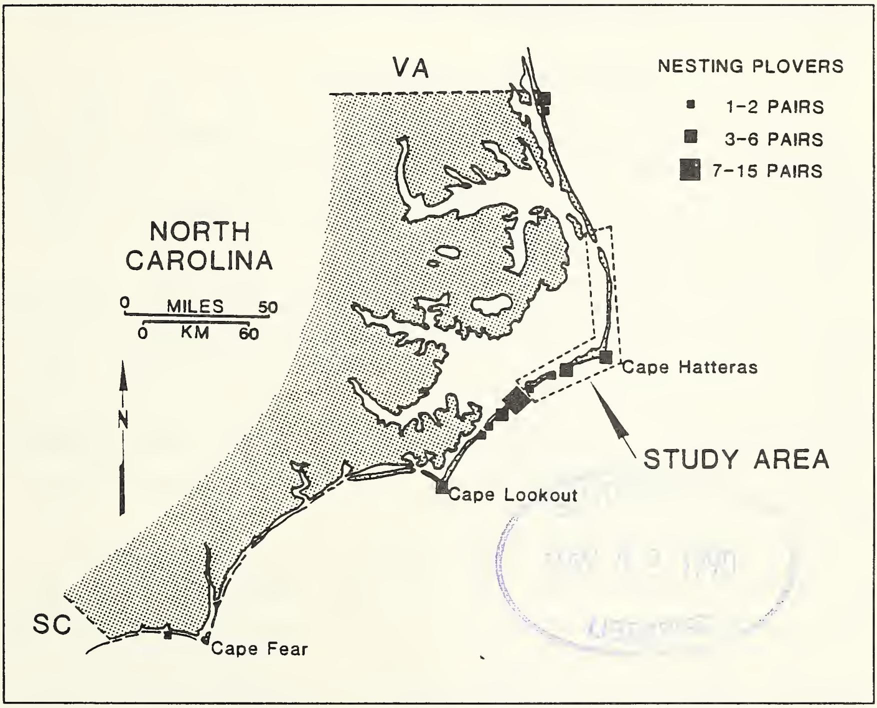

Figure 1. Study area at Cape Hatteras National Seashore together with results from 1988 statewide survey of nesting Piping Plovers (Carter, 1989).

ment of this threatened species. To provide a better understanding of breeding success, nest-site use and hatching success were studied at Cape Hatteras National Seashore between May and mid-August of 1987.

METHODS

Searches for Piping Plover nests were made between May and August by slowly driving most of the beaches and watching for any plover activity. Areas near inlets, capes, and overwashes were walked for more thorough coverage. Once located, nesting sites were posted and roped off from access by off-road vehicles. Nest contents were checked when initially found, when the eggs were not being incubated, and several times a week until the nest was empty. Observations using binoculars and spotting scopes were made from a vehicle.

Nest-site characteristics recorded for each site included: sediment size, distance and size of the closest vegetated dune, vegetation cover and diversity on the closest dune, and distance to the closest tern nest. Sediment samples were collected one meter north, east, south, and west of each nest, and sieved into the following categories: gravel (≥ 2.00 mm), coarse sand (0.50-1.99 mm), medium sand (0.25-0.49 mm), and fine sand (<0.25 mm).

RESULTS AND DISCUSSION

Ten pairs of Piping Plovers were observed during the summer at four sites within Cape Hatteras National Seashore. These sites were; Cape Point (area around Cape Hatteras), the southern end of Hatteras Island, the northern end of Ocracoke Island, and the southern end of Ocracoke Island. Nests were found for nine pairs. One pair was observed with a brood of three chicks.

It is difficult to draw conclusions over a period of one summer; however, several observations warrant discussion. Four of nine nests were located on medium to coarse substrates (Cape Point), and five nests were found on fine to medium substrates (near inlets) (Table 1). Nests found on medium to coarse substrates were composed mostly of shell fragments. Coarse shelly substrate is the result of wind-sorted overwash sediments. Overwash areas on narrower sections of the beach appeared to provide similar coarse substrate habitat, but were not used by any plovers. The majority of nesting pairs were associated with sandy overwash flats located near inlets. Substrate near inlets was dominated by fine and medium sediments with fewer shell fragments than at Cape Point.

Nests found on fine sediments around inlets were closer to vegetated dunes than those on coarse sediments at Cape Point. The average distance to the closest vegetated dune was 6.2 m around the inlets and 17.5 m at Cape Point. Individual nests were more difficult to find at Cape Point, where eggs were difficult to see on the coarse, light-colored substrate. Nests near inlets were generally closer to small "islands" of vegetated dunes where eggs were easily visible on the fine dark sediment.

Opposite page: Table 1. Measurements of physical and vegetative features at Piping Plover nest sites at Cape Hatteras National Seashore, 1987.

Nest Location	Substrate Size*	Closest Dune (m)	Dune Size (m)	Vegetation Cover	Dominant Species	
Cape Point 1	Medium - 29% Coarse - 26%	30	20x24	80%	*Panicum amarum* *Iva imbricata*	80% 20%
Cape Point 2	Medium - 32% Coarse - 27%	20	8x4	80%	*Uniola paniculata*	100%
Cape Point 3	Coarse - 29% Medium - 28%	18	10x9	85%	*Spartina patens* *Cynodon dactylon* *Cakile harperi* *Euphorbia polygonifolia* *Amaranthus pumilis*	58% 30% 5% 5% 2%
Cape Point 4	Medium - 31% Coarse - 29%	2	10x20	40%	*C. harperi* *U. paniculata* *P. amarum*	50% 40% 10%
Hatteras Inlet 1	Fine - 31% Medium - 29%	5	16x30	65%	*U. paniculata* *P. amarum*	98% 2%
Hatteras Inlet 2	Fine - 56% Medium - 41%	0.1	20x11	50%	*U. paniculata* *P. amarum*	98% 2%
Hatteras Inlet 3	Fine - 37% Medium - 26%	2	12x18	60%	*U. paniculata* *P. amarum*	95% 5%
Hatteras Inlet 4	Fine - 36% Medium - 26%	5	7x3	50%	*P. amarum*	100%
North Ocracoke	Fine - 33% Medium - 32%	19	6x6	30%	*U. paniculata*	100%

* Substrate diameter size: 0.50 mm $\geq$ Coarse $<$ 2.00 mm; 0.25 $\geq$ Medium $<$ 0.50 mm; and Fine $<$ 0.25 mm

Cover and diversity of vegetation on the closest dune varied among nests. *Uniola paniculata* and *Panicum amarum* were the most common and dominant dune plants (Table 1). There was slightly less vegetative cover on dunes around the inlets than on dunes at Cape Point.

All nests were within 300 m of tidal pools or flats. Most young from the Cape Point area moved to these pools after hatching. Young from nests near inlets were often observed feeding on moist, dark tidal flats or along the soundside shore of the island. Availability of these pools may be an important factor for nesting sites.

Nest Location	Closest Nesting Colonial Species	Eggs Laid	Young Seen (% hatched)
Cape Point 1	Common Tern (100m+)	3	1 (33)
Cape Point 2	Common Tern (20m)	2	0
Cape Point 3	Common Tern (20m)	4	0
Cape Point 4	Least Tern (7m)	3	1 (33)
Hatteras Inlet 1	Least Tern (100m+)	3	0
Hatteras Inlet 2	Least Tern (100m+)	4	0
Hatteras Inlet 3	Least Tern (50m)	4	2 (50)
Hatteras Inlet 4	Least Tern (100m+)	4	1 (25)
North Ocracoke	Common Tern (100m+)	4	2 (50)
South Ocracoke	Common Tern (?)	?	3

Table 2. Hatching success and nesting associates of nesting Piping Plovers within Cape Hatteras National Seashore, 1987.

Only four nests were within 100 m of nesting colonial waterbirds (Table 2). Two nests at Cape Point were in a colony of Common Terns (*Sterna hirundo*), Gull-billed Terns (*Sterna nilotica*), and Black Skimmers (*Rynchops niger*). One nest near the tip of Cape Point was within 10 m of two Least Tern (*Sterna antillarum*) nests. Another Piping Plover nest was within 100 m of a colony of 14 Least Tern nests at Hatteras Inlet. Three pairs of Wilson's Plovers (*Charadrius wilsonia*) also nested among Piping Plover nests at Hatteras Inlet.

Although Cape Hatteras National Seashore is near the edge of the Piping Plover's breeding range, clutch size and hatching success were similar to those reported from neighboring states. Clutch size averaged 3.4 eggs per nest in this study. This is similar to results reported from Virginia (3.64, Patterson, 1988), Maryland (3.72, Patterson, 1988), and New Jersey (2.83 to 3.85, Burger, 1987). Of the 34 eggs found, only 10 hatched. Hatching success averaged 1.0 chick per nest. This is within the range of rates reported from areas in Virginia (0.19, Patterson, 1988), Maryland (1.00 to 2.00, Patterson, 1988), and New Jersey (0.23 to 1.26, Burger, 1987). Although no egg or chick predation was observed, the disappearance of single eggs and entire clutches suggested predation. Burger (1987) attributed the major cause of egg loss in New Jersey to "unknown/missing" and "predation" for seven of eight years. Cat (*Felis domesticus*) predation on adult and chick terns occurred near three plover nests at Cape Point. Fish Crow (*Corvus ossifragus*) predation on tern eggs was also observed. One pair of plovers renested at Cape Point after the disappearance of the first clutch.

Nine pairs of Piping Plovers were found nesting at Cape Hatteras National Seashore during both 1985 (Golder, 1986) and 1988 (Carter, 1989). Piping Plovers have been shown to be site faithful between years (Haig and Oring, 1988), which may partially account for the stable population at Cape Hatteras National Seashore over the past several years.

The fate of breeding Piping Plovers in North Carolina is uncertain. Most nests were near paths heavily used by off-road vehicles. The extensive use of Cape Hatteras National Seashore by off-road vehicles creates unavoidable conflicts. A small nesting population and increasing pressures from human disturbances indicate a need to protect and manage the remaining critical habitat for Piping Plovers in North Carolina.

SUMMARY

A survey of Piping Plover nest-site use and hatching success was conducted at Cape Hatteras National Seashore during May-August 1987. Ten nesting pairs and nine nests were located.

Piping Plover nests were found on broad, open, sandy flats associated with either inlets or Cape Point. Nesting sites were in areas characterized by island-like, fragmented dunes near tidal pools or flats. No nests were near the long, continuous, high primary dune found along most of the Outer Banks.

Piping Plovers did not prefer any particular beach substrate for nesting; however, nests on fine sediments (near inlets) were closer to vegetation than nests on coarse sediments (Cape Point).

Clutch size averaged 3.4 eggs/nest. Hatching success averaged 1.0 young fledged per nest. A combination of predation and/or disturbance appear to be the cause of breeding failure.

ACKNOWLEDGEMENTS

Data collected for this paper was funded by Cape Hatteras National Seashore. Alan Barron and Rosemary Bauman assisted with portions of the field work. I am grateful for Kent Turner's cooperation throughout the summer. Kevin Markham and Alexander Smith reviewed earlier drafts of this paper.

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General Field Notes

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NOTICE

Publication of any unusual sightings of birds in the Field Notes or Briefs for the Files does not imply that these reports have been accepted into the official Checklist of Birds records for either North or South Carolina. Decisions regarding the official Checklists are made by the respective State Records Committees and will be reported upon periodically in THE CHAT.

Brown-headed Nuthatches Nest Again at Weaverville, Buncombe County, N.C.

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Brown-headed Nuthatches (*Sitta pusilla*) are very rare and sporadic breeding birds in the mountains of North Carolina, even since the early 1970's when they reinvaded the French Broad River Valley in Buncombe County (Simpson, 1969; Whitehurst, 1986). Consequently, we present herein a detailed record, supported by two photographs by the senior author, of a 1988 nesting by *S. pusilla* near Weaverville, Buncombe County.

Brown-headed Nuthatches nested in the rural yard of Mr. and Mrs. Ray Charbonneau, elevation 732 m, 3 km N of Weaverville, off the intersection of U.S 19/23 and Monticello Road. The yard contained Shortleaf (*Pinus echinata*), Virginia (*P. virginiana*) and White (*P. strobus*) pines, and a variety of deciduous trees, chiefly poplar (*Populus* spp.), oak (*Quercus* spp.), dogwood (*Cornus* spp.), and maple (*Acer* spp.). The nest was located 7.6 m from the corner of the house in a cavity in a Shortleaf Pine snag 2.1 m tall. Diameter of the snag at breast height was 30.5 cm. The nest cavity was 1.8 m above ground, near the top of the snag. The entrance was narrow, with no bark surrounding the opening (Figure 1).

The senior author watched the pair of adults, plus one auxiliary bring food to the nest daily from 15 to 17 April (20 feeding trips, all documented by color slides). On six trips, spiders were brought to the nest; on seven trips, insects were fed to an unknown number of nestlings (Figure 2); food items brought to the nest for the remaining seven trips were not identified. The eventual outcome of this nesting attempt is unknown.

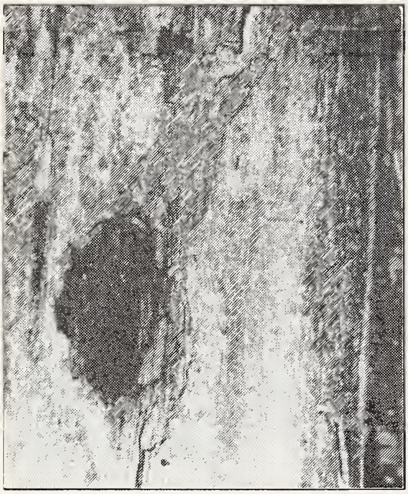

Figure 1. Cavity entrance in a Shortleaf Pine snag excavated by breeding Brown-headed Nuthatches near Weaverville, Buncombe Co., N. C. Photo by B. Duyck.

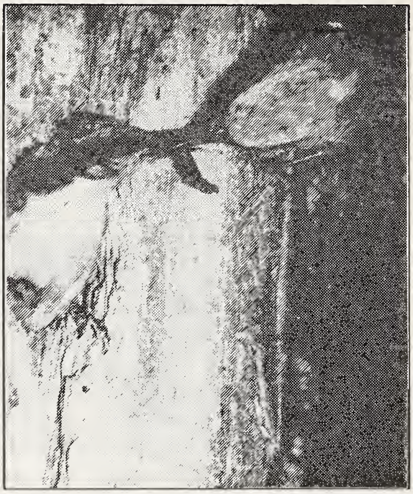

Figure 2. At the cavity entrance, one adult Brown-headed Nuthatch passes a caterpillar to another for use in feeding nestlings.

Except for a set of eggs collected in 1894 at an unidentified nest site by John S. Cairns, also near Weaverville (Simpson, 1969), our observation is the only confirmed nest record for Brown-headed Nuthatches at a specific site for the North Carolina mountains. The other three confirmed breeding records are of adults feeding fledglings, all of them from Buncombe County, but from localities other than Weaverville (Whitehurst, 1986; Chat 51:22, 1987; Chat 51:81, 1987).

For a further review, including breeding information, of the recent range expansion of the Brown-headed Nuthatch in the Southeast, especially Tennessee, see Haney (1981), Loftin and Green (1985), and Tanner (1988). We note that the Brown-headed Nuthatch is not rare but uncommon and local, in the mountains of South Carolina, up to elevations of 610-671 m (Loomis, 1890; Pickens, 1928; D.B. McNair, pers. obsv.).

Acknowledgments. We thank L. Moseley and E. F. Potter for reviewing this note. Reports in Briefs for the Files of The Chat are not cited below.

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American Coots Nest in South Carolina after a 35-year Interlude, and a Summary of South Carolina Coot Nidiology

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On 17 June 1989 in the main freshwater impoundment at Magnolia Gardens, Charleston County, South Carolina, I found an American Coot (*Fulica americana*) nest containing three eggs. Both adults mobbed me from hidden positions in nearby Cattails (*Typha* spp.). On 20 June, the eggs were gone, although the nest was intact (see below), and adults were still in the vicinity. I assumed that the nest was depredated, as no young were seen or heard in the area.

On 6 July 1989, I found evidence of another nesting, when I saw a young American Coot (about seven days old) being fed by another pair of coots. The young, half-grown coot was last seen on 15 July, still accompanying the adults at the same spot where they were first seen.

On 30 July 1989, I saw four downy young (< 5 days old) in the vicinity of the nest site first found on 17 June. These young did not come from the first nest, as it had been collected (see below), but presumably were the results of a renesting by the original pair of coots.

In summary, in 1989 I found three nesting attempts at Magnolia Gardens, by at least two pairs of American Coots. During the breeding seasons of 1985-1988, the impoundment was searched weekly for nests of all species. No coot nests were found, and no coots were seen in the impoundment after June. The main difference in habitat conditions between 1985-1988 and 1989 was the higher water level maintained throughout the summer in the latter year (0.25 - 0.5 m higher than in preceding years).

As no descriptive information has been published for any of the American Coot nests that have been found in the state, I give the following details for the nest found on 17 June 1989. The nest was in a sparse (average distance between 10 clumps = 9 cm) island of cattails that measured 1.5 x 2.1 m, located near the center of a narrow (about 12 m wide) channel through dense stands of cattails. The distance from the island to the main cattails was 4 m on one side and 6 m on the other. The water depth under the nest was 48 cm. The nest was a bulky floating platform made of cattail (*T. latifolia* and *T. domingensis*) leaves. The base of the nest, which touched the bottom of the pond, was 56 cm in diameter. The platform of the nest, which had a very shallow (<1 cm) depression, was about level with the water surface. Because of the buoyancy of the cattail leaves, the nest floated, although the bottommost leaves were in contact with the substrate below. When removed from the water, the nest had a depth of 23 cm. The sides of the nest were attached to four clumps of green cattail. The height of the tallest cattail above the nest was 2.3 m above the water. On 1 July, after I was sure that the nest would not be reused by the coots, the nest was collected. The dry wight of the nest (ChM No. 1984.44) was 579 g.

Table 1. American Coot nests found at Magnolia Gardens, 1960-1989.

Date	No. of nests: No. of eggs	Reference (ChM no.[1])
1 May 1960	one:eight	Chat 24:75-76, 1960; (ChM 3213-3220)
3 May 1960	two:eight each	Chat 24:75-76, 1960
29 May 1960	one:nine	E. Cutts, unpubl. data, ChM
1 June 1963	one:seven	Cutts collection (ChM 3221-3227)
15 June 1963	one:seven	Cutts collection (ChM 3258-3264)
6 July 1963	one:eight	E. Cutts, unpubl. data, ChM
13 July 1963	one:seven	E. Cutts, unpubl. data, ChM
6 June 1964	two:six two:four one:five two:two	E. Cutts, unpubl. data, ChM
17 June 1989	one:three	present study

[1] ChM no. refers to accession numbers of specimens deposited in the Charleston Museum

American Coots are often present as summer vagrants in South Carolina, but in only a few cases have nests with eggs been found. The last published nesting of the American Coot in South Carolina was in 1961, from Williston, Barnwell County (Post, Chat 25:88, 1961). The species has also been found nesting in Charleston County, at Magnolia Gardens, in 1960 (Cutts, Chat 24: 75-76, 1960). An unverified report by Cutts that 40 pairs "nested" on Bull's Island, Charleston County, in 1964 was published in Burton (supplement to Contrib. Charleston Mus. 11, 1969). Unlike the others, the Bull's Island report was not substantiated by published details, photographs or specimens. As Cutts was a meticulous oologist, who recorded clutch sizes and other details of all nests that he found, not just those whose contents he collected, it is doubtful that any direct evidence of nesting was obtained from Bull's Island.

In summary, American Coots are now known to have bred at only two localities in South Carolina, and the only extant site is Magnolia Gardens. Seventeen nests containing eggs have been found. The egg dates are 1 May (1960) - 20 July (1961). The mean peak egg date is 5 June. Assuming that the data in Table 1 (plus that for the single nest found in Barnwell County) represent a normal distribution, then the 95% confidence interval for egg dates is 27 May - 14 June.

Breeding of the Chestnut-sided Warbler at Caesar's Head, S. C.

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Cleveland, SC 29635

In suitable habitat, the Chestnut-sided Warbler (*Dendroica pensylvanica*) is a common breeder in the mountains of North Carolina (above 600 m). In South Carolina, breeding records for this species have not been documented since the 1890s. Loomis (Auk 8:323-333, 1891) in his visit to Caesar's Head, stated that "this warbler is very common in this locality." He mentioned finding recently fledged young at Caesar's Head, but details of a nest are lacking. This article is a report on the present breeding status of the Chestnut-sided Warbler at Caesar's Head, Greenville County, S.C.

Territorial male Chestnut-sided Warblers were present in the Caesar's Head area in the summers of 1986 through 1989. I found the birds in areas associated with brushy powerline clearings. In 1986, one male was present near the Caesar's Head State Park headquarters (960 m). In 1987, a male was present in the same locality and I saw another singing near the Raven Cliff Falls Trail on 23 May (850 m). In 1988, a male was present near the State Park headquarters and another near Hwy. 276, 1.5 km from the North Carolina border.

On 30 April 1989, a territorial male was first seen in the powerline clearing near the State Park headquarters. On 14 May, I watched a female as she foraged in the undergrowth of the powerline clearing. The male chased her into a thicket and grasped her tail with his bill. They disappeared, and mating was not observed. On 8 June, I saw the male singing while holding caterpillars in his bill. He flew to a Mountain Laurel (*Kalmia latifolia*) thicket, which contained a nest with four young. Later that day, I photographed a female brooding the young.

I saw both adults bringing insects to the nest; these included caterpillars, moths and small grasshoppers. The young were fed at frequent intervals. The adults were tame and brought food while I stood nearby. When distressed, they reacted by moving through the shrubbery while giving an excited "chip" call. I did not see a distraction display. The young fledged on 13 June. On 15 June and 18 June, I saw both adults feeding the young in a nearby thicket.

The nest was located in a Mountain Laurel thicket situated in a small, open clearing (960 m). Other shrubs and saplings of this thicket included Black Locust (*Robinia pseudoacacia*), Rosebay (*Rhododendron maximum*), Yellow Poplar (*Liriodendron tulipifera*), Red Maple (*Acer rubrum*), Sweet Shrub (*Calycanthus floridus*), Sweet Pepper Bush (*Clethra acuminata*) and Eastern Hemlock (*Tsuga canadensis*). The significant herbaceous plants included Day Lily (*Hemerocallis fulva*), Whorled Loosestrife (*Lysimachia quadrifolia*) and Hay-scented Fern (*Dennstaedtia punctilobula*). The average height of the Mountain Laurel was 1.1 m. The laurel used for nesting was 82 cm.

The site was located 17 m from the powerline clearing and 8.2 m from the State Park parking lot. The site was also located 5.1 m from a brushy, wooded margin with a thick understory. The dominant canopy trees here included Sweet Birch (*Betula lenta*), Red Maple, Black Locust and Northern Red Oak (*Quercus rubra*). The understory was composed of Carolina Rhododendron (*Rhododendron minus*), Mountain Laurel, Sassafras (*Sassafras albidum*) and Flowering Dogwood (*Cornus florida*). Coral Honeysuckle (*Lonicera sempervirens*) and Virginia Creeper (*Parthenocissus quinquefolia*) formed a dense cover on the outer fringe. The young moved here after leaving the nest.

The nest was 56 cm above ground and was attached to four stems of the Mountain Laurel shrub. It was placed at the edge of the thicket and was partially open to view. The outer cup was thin-walled and loosely woven with weed strips, grasses, bark strips and plant down. It was wrapped and attached to the laurel stems with spider web or insect silk. The inner cup was neatly lined with grasses, fine weed strips, thin shreds of bark and Mountain Laurel flower pedicels. The diameter of the outer cup was 6.3 cm, and the depth was 3.5 cm. The nest is now in the Clemson University Vertebrate Collections.

The male frequently sang from the powerline clearing and other nearby wooded margins. He sang persistently during the day during May to mid-June, at which time singing declined. He sang from both the canopy and the understory. During May, Chestnut-sided Warbler primary song was most frequently given. By late May-early June, another more variable, rambling song was heard.

My observations indicate that the Chestnut-sided Warbler is an uncommon summer resident of the Caesar's Head area. In the 1890s, this species was considered very common. The reasons for its decline may be revealed by Loomis' (1891) statements. He mentions that periodic burning to create range for cattle was a practice in this area during the 1800s. This probably created the second-growth habitat favored by the Chestnut-sided Warbler. Intentional burning, or clearing, is no longer a common practice at Caesar's Head. Today, suitable habitat is restricted to powerline clearings and other small openings such as around houses. A closer look at this habitat may reveal that the Chestnut-sided Warbler is fairly common, but localized, in these areas.

Another Possible Breeding Record of the Chestnut-sided Warbler in South Carolina

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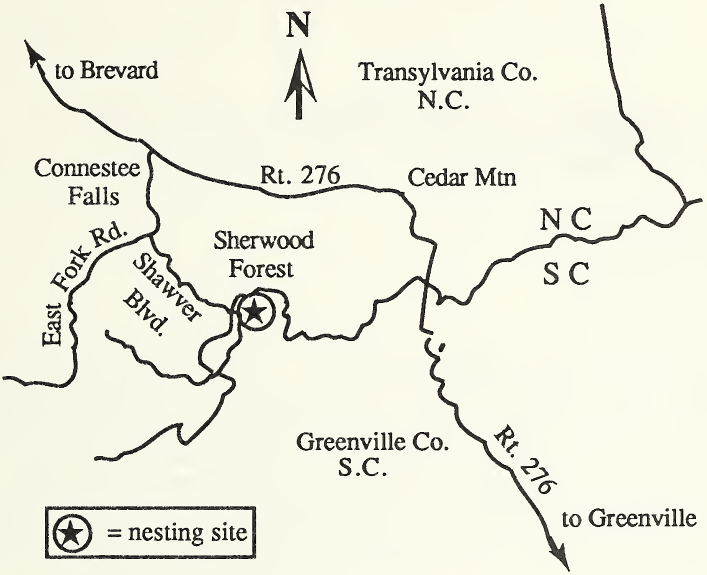
Our home, 13 km S of Brevard, North Carolina, is 400 m from the South Carolina border. Since 1986 we have noted a singing male Chestnut-sided Warbler (*Dendroica pensylvanica*) in a shrubby clearing—an abandoned lake site—just over the state line in Greenville County, South Carolina. The elevation is about 920 m (Figure 1).


N
to Brevard
Transylvania Co.
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Connestee
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Cedar Mtn
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East Fork Rd.
Shawver
Blvd.
Sherwood
Forest
Greenville Co.
S.C.
Rt. 276
to Greenville
= nesting site

Figure 1. Map of the border area in which Chestnut-sided Warblers are presumed to have nested.

In 1988 we visited the site in early May and heard the male singing. When we played a recording of the species' primary song, the bird acted defensively. On 10 June 1988 we returned to the site and again saw a male as he disappeared into a tangle of briars and sapling trees at the edge of the lake site. He was carrying a small green worm. The site is about 30 m from the state line. Immediately we heard the calling of begging young. We then saw a recently fledged young. All this time the parents were mobbing us.

By North Carolina standards, this is proof of breeding. The North Carolina border is less than 20 m from the northern edge of the lake site. The main question, then, is whether the birds nested in South Carolina. We believe that they did. The only suitable habitat for Chestnut-sided Warblers in the immediate area is this 2-ha clearing; everything around it is mature woods. The lake site, which was cleared at least fifteen years ago, is growing up now with a mix of Fetter-bush (*Leucothoe* sp.), Virginia Creeper (*Parthenocissus quinquefolia*), Blackberry (*Rubus* sp.), small Rhododendrons (*Rhododendron minus*), Mountain Laurel (*Kalmia latifolia*), and saplings trees of several species.

On all our visits to this site over a period of four seasons beginning in 1986, we have never seen or heard the male Chestnut-sided Warbler on the North Carolina side of the line. He usually sings from one of four perches around the edges of the lake site. The northernmost one is about 15 m from the state line; the others are all farther south.

Chestnut-sided Warblers are fairly common in proper habitat on the North Carolina side of the border. We have confirmed two pairs within a mile of this site for the North Carolina Atlas, at approximately the same elevation.

Northern Goshawk at Roan Mountain, Tennessee and North Carolina, with Comments on its Status in these two States

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On 22 November 1987, I observed an immature Northern Goshawk (*Accipiter gentilis*) at Carver's Gap on Roan Mountain, Carter County, Tennessee and Mitchell County, North Carolina. I first saw the goshawk at a distance of 400 m. It soon sailed almost directly over me at a height of 100 m, as I stood in the gap, then quickly glided out of sight around the top of the mountain. The goshawk was approximately the size of a Red-tailed Hawk (*Buteo jamaicensis*), which I observed in the same area shortly afterwards, and was rather buteo-like in shape. The pattern of the fanned tail consisted of several broad bands, typical of accipiters and unlike the narrow bands of an immature Red-tailed Hawk or the uneven-sized bands of a Red-shouldered Hawk (*B. lineatus*). There were heavy brown streaks on the breast. I was unable to see whether an eyebrow was present, but this feature is not species-specific for immature goshawk anyway. The day was cool and clear. My sighting followed closely goshawk reports on 9 November at the same place and 15 November at nearby Ripshin Mountain, Carter County, Tennessee (Migrant 59:42-43, 1988).

A search through *The Migrant* and *The Chat* produced approximately 81 reports of Northern Goshawk from Tennessee and North Carolina through November 1988. However, the status of this species in these states is clouded somewhat by the lack of documentation for many reports. Some reports include good descriptions, while others are unconvincing. A brief analysis yielded some interesting results. Of these reports, 50 (62%) are from Tennessee, 24 (30%) are from North Carolina and 7 (9%) are shared. Tennessee has a few specimen records (e.g., Parmer, 1963) and two band recoveries (Evans, 1983), while North Carolina has only sight records. More adult (33 = 41%) than immature (10 = 12%) birds have been reported; but, that leaves a significant number of birds of unspecified age (38 = 47%), casting doubt on the actual age ratio. The majority (59%) of reports are from the mountainous region of eastern Tennessee and western North Carolina (Table 1), as would have been expected. However, all of the main regions of both states are included.

Table 1. Regional distribution of Northern Goshawk records in Tennessee and North Carolina.*

W.TN	Mid. TN	E.TN-W.NC	Mid NC	E.NC	Unk.
4	20	48	4	4	1
5%	25%	59%	5%	5%	1%

* Regions listed correspond to the following physiographic provinces: W.TN = Coastal Plain; Mid.TN = Highland Rim and Central Basin; E.TN-W.NC = Cumberland Plateau and Ridge & Valley of TN, plus Blue Ridge Mountains of TN and NC; Mid.NC = Piedmont; E. NC = Coastal Plain; Unk.= Unknown

More surprising is the temporal distribution (Table 2), with reports from all months. But here too, most reports are from the expected season, late fall and early winter (October through December = 49%). The Northern Goshawk is well-known for its southward winter incursions which "occur about once a decade, in response to a rapid decrease" in prey, and which "tend to last at least two years, the second a so-called echo effect" (Palmer, 1988:365-366). However, only 25 (31%) of the Tennessee and North Carolina reports are from known incursion and echo years listed in Palmer (1988). "Some incursions consist almost entirely of adult goshawks—evidently very few young have been reared because of food shortage" (Palmer, 1988:365-366). Only 13 (39%) of the adults reported from Tennessee and North Carolina are from incursion years, while none of the immatures are. Palmer (1988) further states that winter hunting territories are set up. There is at least one such instance of over-wintering in Johnson County, Tennessee, in a non-incursion year (Migrant 47:23-24, 49-50, 79-80, 1976). Finally, the summer sightings have caused some speculation on the possibility of nesting in the mountains, and indeed, there is one convincing report of breeding in Avery County, North Carolina (Hader, 1975; Lee, 1985).

Table 2. Temporal distribution of Northern Goshawk records within Tennessee and North Carolina. *

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Unk.
9	2	9	7	2	4	1	5	5	12	10	23	3

* Reports spanning more than one month are included in total for each month.

Thus it would appear that Northern Goshawk is at least an occasional, irregular visitor to Tennessee and North Carolina. Reports are not limited to incursion years, although these probably represent the most likely times of occurrence. Future reports should indicate the age of the bird and be accompanied by a brief description in an effort to clarify the species' status in these states.

I thank L. J. Moseley and, especially, D. B. McNair for critical review of an earlier draft of this paper. Sight reports in "The season: Eastern mountain region" of *The Migrant* compiled by G. D. Eller are not listed in the literature cited section below.

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Lark Sparrows Breed at Rhine-Luzon Drop Zone, Camp MacKall, Scotland County, N. C.

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Two pairs of Lark Sparrows (*Chondestes grammacus*) nested at the Rhine-Luzon Drop Zone, Camp MacKall, Scotland County, in the Sandhills of North Carolina in 1988. The drop zone is a large man-maintained sandy field characterized by extensive areas of bare ground, herbaceous plant cover, and with scattered saplings, at an elevation of about 70 m. Nesting territories of both pairs of Lark Sparrows were large.

I confirmed breeding of both pairs on 17 June. One end of the drop zone is higher than the remaining portion. Here, at 0741 h, I flushed a female Lark Sparrow with one juvenile from the ground, 50 m from where the male had been recently singing. The female and juvenile flew a short distance and resumed foraging on the ground, where the female fed the juvenile at least twice. The birds flew again shortly afterward and I lost contact with them. At 0914-0917 h, I flushed the pair with the juvenile near the previous site and followed and flushed the threesome three times. Each time, they flew over 65 m, staying within the male's territory; the juvenile's flight was strong though labored.

At an adjacent territory on fairly level ground, I watched a second pair of Lark Sparrows, usually the male alone, bring food four times to the vicinity of a presumed nest-site from 0800-0817 h. At 0818 h, I located the nest which contained at least three young, about 6-7 days old. I did not closely examine the nest because I feared the young might prematurely fledge.

I returned on 22 June and collected the nest which no longer had young (AMNH 60463). The nest was built on the ground at the base of an oak (*Quercus* spp.) seedling, about 0.45 m high by 0.75 m wide. The nest was placed in a shallow depression, facing SE. Leaves from an overhanging branch of the oak shielded it. The side of the nest at the base of the oak was compact, so the length of the outer cup was 13.0 cm at its narrowest, 14.5 cm at its widest. The outer cup was composed of grasses and one piece of string. The symmetrical inner cup, 7.0 cm across, was composed of fine grasses and rootlets. The bottom of the inner cup was firm, not flimsy. However, light passed through the cup and a thin layer of sand rested on its bottom. (See cover photo.)

In 1989, two pairs again nested at the drop zone. An unmated male was also present. The two pairs occupied territories very similar to those used by the two pairs in 1988. The territory of the unmated male was contiguous with the pair nesting on fairly level ground.

I confirmed breeding of both pairs on 4 July 1989. At 1230 h, the pair breeding on fairly level ground was feeding four nestlings, about 2-3 days old. The circular nest was built in a slight depression on the ground and shielded overhead, though not from the side, by a deciduous shrub, about 0.61 m high by 0.92 m wide. The nest faced SE and the nest-site was in a slightly elevated sandy area. Later that day, on the territory of the other pair, the male occasionally sang on the high ground while its mate was nearby, tending to two very recently fledged juveniles.

Earlier, on 29 May 1989, the pair nesting on fairly level ground brought food to nestlings at a presumed nest-site fairly close (<25 m) to the site of the confirmed nest on 4 July. The fate of this first nesting attempt is unknown and consequently, I do not know if the nest discovered within this territory on 4 July was a renesting attempt or a second brood. Double-broods for Lark Sparrow have been suspected but never confirmed (Baepler, 1968; Newman, 1970).

The breeding habitat, nest placement, and nest construction of these Lark Sparrows at Rhine-Luzon Drop Zone are in agreement with McNair (1982, 1985).

Associated proven or probable breeding species on these Lark Sparrow territories in both years combined were Northern Bobwhite (*Colinus virginianus*), Mourning Dove (*Zenaida macroura*), Common Nighthawk (*Chordeiles minor*), Northern Mockingbird (*Mimus polyglottos*), Blue Grosbeak (*Guiraca caerulea*), Field Sparrow (*Spizella pusilla*), Eastern Meadowlark (*Sturnella magna*), Orchard Oriole (*Icterus spurius*), and American Goldfinches (*Carduelis tristis*). Horned Lark (*Eremophila alpestris*), Eastern Kingbird (*Tyrannus tyrannus*), and Chipping Sparrows (*Spizella passerina*) frequently visited the Lark Sparrow territories to forage. All these associated species closely agree with those found at Derby, N.C. (McNair, 1982). The only notable difference was a pair of Killdeer (*Charadrius vociferus*) which nested at the Rhine-Luzon Drop Zone in 1989.

I only visited the Lark Sparrow territories at the drop zone on five dates from 20 May to 22 June in 1988 for a total of 15 hours and on three dates from 3 May to 4 July in 1989 for a total of 6 hours, so I have a limited amount of information about nesting, foraging, vocal, and other behaviors.

The pairs of Lark Sparrows at the nests permitted me to approach closely when they brought food to the young in both years. Small grasshoppers were the most common food item brought to the nest by both sexes (N = 12 trips), although more often by a male, even when a female was absent. This agrees with Wilson (1931) and Baepler (1968). I never saw a male offer food or feed a female off the nest, which also agrees with Baepler (1968). Only a female brooded the young. On 17 June 1988, after I approached the nest indirectly, the female fluttered off silently and flew directly away for 10 m before landing. Later, I directly approached the female on the nest. She responded with a silent "rodent run" and feigned a broken-wing injury for 10 m.

When not at or near the nest, foraging Lark Sparrows were generally shy in 1988, and thus were difficult to watch (Brooks, 1938). In 1989, however, I closely approached foraging Lark Sparrows frequently. Lark Sparrows fed on or near the ground on seeds and small grasshoppers (Baepler, 1968; McNair, 1982). Adults fed separately or together, depending on their other activities.

Singing by males was not the most frequent activity I observed as in 1981 at Derby, N. C., except for observations on 3 May 1989, probably because I missed the courtship period (Baepler, 1968; McNair, 1982). The unmated male sang more frequently than the paired males in 1989. Wilson (1931) and I have noted singing activity is low when parents are tending nestlings or fledglings. Males usually sang from the tops of taller shrubs, infrequently from the ground, and occasionally in flight though I never observed a flight song, consistent with my observations at Derby (McNair, 1982) (Recordings taken in both years archived at FMNH). I also heard both extended and *sotto voce* songs. As in 1981, singing males were generally not easy to approach. Males frequently flew some distance (65-100 m) between perches before singing again.

The other vocalization I heard, from both sexes, was a quiet metallic *tic* note, given under a variety of situations, i.e., when foraging, when the male was calling to the female on the nest before delivering food or to persuade the female to leave the nest, when the pair were both near the nest with or without food, or when any adult was alarmed at my presence. Both parents together uttered a series of *tics* on 17 June 1988, when they could not deliver food to their young because I was too close to the nest.

From 1030-1150 h on 22 June 1988, the adult male on the territory with the nest was visibly disturbed by heat stress. The bird's bill was not open but it extended the wings with the carpals out, fanned its tail, and erected its feathers. In response to my intrusion, it flew quite a few times, but only over 50 m once which was unusual, and it always dangled its legs in flight. The male once sought refuge in the adjacent pine forest, which was also unusual at this locality. The temperature was about 34 C. The day was clear and dry.

Recent breeding records of Lark Sparrow in North Carolina are restricted to the Sandhills in the 1980s. Lark Sparrows nested at Derby, Richmond County, in 1981 (McNair, 1982). In 1983, I saw single adults at two sites in Derby on 17-18 May and R. Davis later saw one singing male at one site on 25 June (Chat 48:26, 1984). In 1984, H. LeGrand saw one non-singing adult in Derby (Chat 49:27, 1985). The habitat at the major breeding site is no longer suitable because the young longleaf pines (*Pinus palustris*) and scattered saplings have grown to form a densely vegetated stand.

At Nijmegan Drop Zone, Fort Bragg, Hoke County, J. Carter and others confirmed breeding Lark Sparrows at two sites within the drop zone in 1984. Three adults and three or four adults were seen at one site on 16 April and 26 June; on 5 July, three adults were seen with one juvenile. On 10 July, one adult was with two juveniles at a different site (Chat 49:27, 1985). At another locality within Fort Bragg, Hoke County, J. Carter and others saw an adult male singing on 29 April 1984 at the Holland Drop Zone (Chat 49:27, 1985). In 1985, J. Carter saw one Lark Sparrow at Nijmegan Drop Zone on 25 June (Chat 50:27, 1986). In 1987, J.

Carter and others saw one to two adults at the Nijmegan Drop Zone by May (Amer. Birds 41:418, 1987).

Near Emory, Montgomery County, J. Carter and others found one Lark Sparrow on 15 May 1988 in the North Carolina Sandhills, but did not revisit the site (Chat 53:50, 1989).

On 3 May 1989, I watched an unmated male sing from 0930-1030 h at a level grassy and sandy pasture near the tower of the Camp MacKall Airfield, Richmond County, about 4 km from the Rhine-Luzon Drop Zone, but I did not locate any Lark Sparrows at this locality thereafter (recording archived at FMNH).

In the Sandhills of South Carolina, R. Carter saw two adult Lark Sparrows (one singing male) near Lucknow, Lee County, on 25 June 1987, and one adult at the same site on 3 July (Amer. Birds 41:1424, 1987).

Only one historical confirmed breeding record of Lark Sparrow exists for North Carolina, in the Piedmont at Raleigh, Wake County, in 1890 (McNair, 1983). The A.O.U. Check-list (1957) and Baepler (1968) state that the Lark Sparrow breeds in western North Carolina at Cranberry, Avery County, though neither Pearson, Brimley and Brimley (1942) nor the fourth edition of the A.O.U. Check-list (1931) mention this breeding record. The Cranberry record may be based on G. B. Sennett's "full grown young" (AMNH 83557) that he shot on 9 August 1886 from the top of "an apple tree in old orchard near old house on Cranberry Hotel Farm" at 915 m (Sennett, 1887; catalog entry, W. E. Lanyon, *in litt.*). Lanyon (*in litt.*) states that this Lark Sparrow specimen has nearly completed its postjuvenal molt, "for it has its adult plumage except for the retention of a dusky, streaked band across the upper chest. The rectrices and primaries are somewhat worn, certainly not fresh." Obviously, this bird could have wandered a considerable distance from its natal locality. Thus, evidence is insufficient, based on this specimen, to support the contention that this species nested at Cranberry.

Acknowledgments. I thank Drs. W. E. Lanyon and G. Barrowclough, former and present Curator of Ornithology, Am. Mus. Nat. Hist., for their assistance, and Dr. J. W. Hardy, Curator of Ornithology and of the Bioacoustics Laboratory, Florida Mus. Nat. Hist., for archiving my recordings of Lark Sparrow vocalizations. I thank Drs. H. Hendrickson, W. Post, and an anonymous individual for reviewing this note. Sight reports in "Briefs for the Files" of The Chat and the "South Atlantic Region" of American Birds, both presently compiled by Dr. H. E. LeGrand, Jr., are not listed in the literature cited section below.

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Request for assistance

Information on sitings of Least Tern nests is needed for an ongoing study. Please send information to:

Lynette Abercrombie
South Carolina Wildlife & Marine Resources Department
Rt. 2, Box 167
Greenpond, SC 29644

CBC Rare Bird Alert
(704) 332-BIRD

BRIEFS FOR THE FILES

HARRY E. LeGRAND, JR.

(All dates Fall 1988 to Winter 1988-89 unless otherwise indicated)

RED-THROATED LOON: One was quite rare inland at Falls Lake near Durham, N.C., where seen by Harry LeGrand on 11 February.

RED-NECKED GREBE: Butch Pearce observed one in flight at Hatteras Inlet, N.C., on 30 December.

MANX SHEARWATER: Brian Patteson noted one from shore at Bodie Island, N.C., on 4 February. This rare species is seldom seen from land.

NORTHERN GANNET: An adult observed flying over the US 64 bridge between Manns Harbor and Roanoke Island, N.C., on 9 January was very surprising away from the ocean (John Fussell).

AMERICAN WHITE PELICAN: Single birds were notable at Pea Island, N.C., on 10 December (Joseph Covington, Anson Cooke, Doug Shadwick), and at Hatteras Inlet, N.C., on 14 and 15 January (Ricky Davis and party) and again on 20 February (David Disher).

BROWN PELICAN: Ranging far up tidewater were 11 pelicans seen over Tranters Creek west of Washington, N.C., on 26 February, as noted by Ric Carter.

GREAT CORMORANT: Rare in Carteret County, N.C., an adult was seen in the bight at Cape Lookout on a Carolina Bird Club field trip on 4 February.

ANHINGA: Bob Holmes noted one on 3 December at New Bern, N.C. This species is rare in that state in winter.

AMERICAN BITTERN: Always notable inland in winter were birds seen on 14 January at Lake Wateree SP, S.C. (Tim Kalbach) and on 14 February in extreme northern York County, S.C. (Heathy Walker).

BLACK-CROWNED NIGHT-HERON: Two were seen and heard at dusk in the mountains at Sherwood Forest, Transylvania County, N.C., on 15 September (Norma and Bill Siebenheller).

WOOD STORK: Rare in midwinter in South Carolina was a stork at Bear Island Wildlife Management Area, seen by Lex Glover on 4 February.

FULVOUS WHISTLING-DUCK: Winter records, all in South Carolina, were eight in December at Magnolia Gardens near Charleston (Dennis Forsythe), two in flight over I-95 near the Coosawhatchie River in Jasper County on 8 January (Robin Carter, Caroline Eastman), and two at Bear Island on 4 February (Jim Beatty, Kevin Calhoon, Lex Glover).

TUNDRA SWAN: Notable in South Carolina were 76 at Poco Sabo Plantation in Colleton County on 16 January, as seen by Perry Nugent and Charlie Walters, and one seen at Kathwood Pond in Aiken County on 21 November (Dan Connelly). Notable in inland North Carolina were one seen at Greensboro on 25 December by Herb Hendrickson, two seen near Drake in Nash County on 26 December by Ricky Davis, and two seen by Davis on 22 January just east of Rocky Mount.

MUTE SWAN: Of uncertain origin were two juveniles seen at Santee NWR, S.C., where the species is normally absent, by Dennis Forsythe and others from 11 to 31 December. Two adults were noted at Charlotte, N.C., on 31 December by David Wright. [Three swans were on the same lake last winter; these birds reportedly remained throughout 1988 at the lake.—HEL]

GREATER WHITE-FRONTED GOOSE: Two were seen by Merrill Lynch in a field with Canada Geese near Lake Mattamuskeet, N.C., on 28 December, and three birds were there on 30 December (Derb Carter, Ricky Davis, Jeremy Nance). Four birds were seen at Poco Sabo Plantation in Colleton County, S.C., on 15 January by Dennis Forsythe and others. These seven birds were believed to have been of the Greenland race because of the orange bills. Three other White-fronteds were seen by C. Leland and others at Savannah NWR, S.C., on 14 January.

SNOW GOOSE: Notable inland were two blue phase birds and one white phase bird at Occoneechee Neck, Northampton County, N.C., on 1 January (Harry LeGrand). Also inland in that state were one white phase bird in northeastern Mecklenburg County, N.C., on 18 December (Taylor Piephoff) and three on 26 December near Drake in Nash County (Ricky Davis). A high count for the Charleston, S.C., area was 39 birds seen on 14 December by Dennis Forsythe.

ROSS' GOOSE: Always of interest, though regular at Pea Island, N.C., was an adult at this site seen on 31 December by Bob Lewis, Eric Dean, and others.

BRANT: Rare in South Carolina was a Brant seen at Patriots Point at Mount Pleasant from 21 to 26 December (Dennis Forsythe, Glenn Smith).

MANDARIN DUCK: Though almost certainly an escaped bird, one was killed by a duck hunter in Jones County, N.C., on 7 January, according to Bob Holmes, who has the head frozen at his home.

GREEN-WINGED (EURASIAN) TEAL: Single males were good finds at Pea Island on 14 and 15 January (Ricky Davis, Harry LeGrand, John Wright) and at Bodie Island on 25 and 26 February (Wright).

NORTHERN PINTAIL: Noteworthy inland records included two at Lake Adger in Polk County, N.C., on 11 December (Simon Thompson); two on Lake Bowen in Spartanburg County, S.C., on 8 January (Thompson); one on Lake Junaluska, N.C., on 4 February (Robert Ruiz); and 25 at Falls Lake near Durham on 11 February (Harry LeGrand).

EURASIAN WIGEON: A male was present at an impoundment near Davis, N.C., from 4 February to 11 March, as seen by John Fussell, Larry and Mary Rose, Jeremy Nance, and Greg Massey.

CANVASBACK: A notable count was 100 birds at Santee NWR, S.C., on 11 December (Robin Carter, Caroline Eastman, Dennis Forsythe).

RING-NECKED DUCK: Locally high counts were 1400 at Woodlake near Vass, N.C., as seen by Tom Howard on 18 December, and 1100 on Jordan Lake in Chatham County, N.C., as reported by Merrill Lynch on 26 February.

GREATER SCAUP: Notable inland were four seen on a pond at Gaston, N.C., by Merrill Lynch, Mike Tove, and Randy Yelverton on 1 January, plus a female seen at Tryon, N.C., on 18 January by Simon Thompson.

COMMON EIDER: This winter (1988-89) was a poor one for eider reports in the Carolinas, with the only reports being a female seen at the Oregon Inlet, N.C., bridge on 10 December by Doug Shadwick and a female seen at Hatteras Inlet, N.C., on 30 December by Brian Patteson.

HARLEQUIN DUCK: Two females were seen from 10 December to 20 February at the Oregon Inlet bridge, as reported by Anson Cooke, Doug Shadwick, Joseph Covington, and many other observers. A male and a female were noted by Scott Hartley at Fort Macon SP, N.C., on 14 January.

OLDSQUAW: Rare inland was a female seen by Simon Thompson at Saluda, N.C., from 17 to 25 December.

BLACK SCOTER: Seldom seen away from the coast in winter was one, a female, well studied by Lex Glover on Manning's Pond near Columbia, S.C., on 17 December.

BUFFLEHEAD: A good inland count was 383, as noted by Anne Waters on Par Pond at the Savannah River Plant, S.C., on 20 December.

HOODED MERGANSER: Norma and Bill Siebenheller saw a female with three young on Thunder Lake in Transylvania County, N.C., in April 1988. These observers also noted the species nesting there in 1986.

COMMON MERGANSER: There were several reports for the winter in inland North Carolina (Greensboro, Jordan Lake, Falls Lake, and Goldsboro), but the only report of more than two birds was of four females seen in February in Davie County, N.C., by Myrna Harris. A female was on Bath Creek in Beaufort County, N.C., on 18 December (James Albera, Emily Albera).

RED-BREASTED MERGANSER: A female was notable at Kerr Scott Reservoir near North Wilkesboro, N.C., on 25 December (Simon Thompson), and three males were seen at Falls Lake on 11 February (Harry LeGrand). [During the winter season, these latter two species are seen in somewhat equal numbers on inland lakes, at least in North Carolina; Commons are quite rare on South Carolina lakes. However, Red-breasteds can be occasionally numerous in migration, such as during November, March, and April; Commons are most frequent in the "dead" of winter, during severe weather periods.—HEL]

RUDDY DUCK: A very good inland total of 316 birds was reported by Calvin Zippler and George Reeves on 1 January at the Savannah River Plant, S.C.

OSPREY: Two were seen at Bath, N.C., on 18 December (fide Ric Carter), and one was regularly seen in January and February not far away at South Creek in Beaufort County (Sam Cooper).

BALD EAGLE: An active nest was found in Wake County, N.C., during the winter, as noted by Jeff Walters, Phil Doerr, and others. Though no young were ever seen, this is the first nesting effort for the species in that state's piedmont. A pair of birds was also seen at an old Osprey nest on several occasions in December and January at Orton Pond, N.C. (Ricky Davis), but the birds apparently showed no evidence of nesting.

NORTHERN GOSHAWK: Truly remarkable was the report of an adult goshawk present along the southern shore of Lake Phelps, N.C., for about two months during the winter, as noted by Paris Trail. The bird was seen by Trail on the Pettigrew SP Christmas count on 30 December. Details included "dark crown", "white eye-brow line widens behind eye and separates dark crown from blue-gray back", "tail long—gray with dark bands", "fine gray barring on the breast", and "blue-gray wings". The hawk was seen perched on pond pines and bay species of trees near the lake shore. [This is an amazing record, as nearly all previous sightings are for the mountains or piedmont.—HEL]

ROUGH-LEGGED HAWK: Thorough details were received of three Rough-legged Hawks for the winter season: a dark phase hawk seen by Peter Worthington at Simpsonville, S.C., on 14 January; a light phase hawk seen in Rockingham County, N.C., on 18 December by Nathan Rich, Bobby Barrett, and Jason Yount; and a light phase bird seen by James Coman at his farm in northwestern Alleghany County, N.C., from 8 to 13 December. [The Rockingham

County bird showed a behavior separating this hawk from the Red-tailed Hawk—"the hawk would fly about 5' from the ground in an open grassy field; it would hover and slightly foil wings and then fly farther, then hover again" (according to a description by Rich). Red-tailed Hawks, when they hover, do so high in the air (50 feet or higher) and usually hover into a strong wind; they do not hover while flying low over a field.—HEL]

GOLDEN EAGLE: An immature or subadult bird was seen from 15 to 21 January at Bear Island WMA, S.C., by Dennis Forsythe, Robin Carter, and others. Bill Duyck saw an immature near Sunburst, Haywood County, N.C., on 4 December; he saw an adult in this same area on 9 March.

PEREGRINE FALCON: Though regular in very small numbers in winter along the coast, inland birds are quite rare. The only such report for the season was an adult noted by Tim Kalbach at Santee refuge, S.C., on 29 January.

YELLOW RAIL: A remarkable observation was made by Bob Lewis and Eric Dean, who clicked rocks at a marsh at Cape Hatteras point, N.C., on the night of 30 December in hopes of seeing or hearing a Yellow Rail. One bird "zig-zagged" across a ditch in response to the clicking, but the bird did not call.

COMMON MOORHEN: Very high winter counts were 157 on 5 March at Magnolia Gardens near Charleston (Will Post) and 75 on 22 January at Sunset Beach, N.C. (Sam Cooper).

SANDHILL CRANE: One was seen at an impoundment near Aurora, N.C., on 9 February (Sam Cooper), perhaps one of the two birds found there in November.

LESSER GOLDEN-PLOVER: One of the few winter reports ever for North Carolina was one seen and heard calling with a flock of Killdeers just south of Raleigh on 11 December by Bob Hader, Jim Mulholland, and Harry LeGrand.

SEMIPALMATED PLOVER: A good winter count of 82 was made by Mark Oberle at Sunset Beach, N.C., on 18 February.

WILSON'S PLOVER: Several weeks late was one seen by John Fussell at the western tip of Shackleford Banks, N.C., on 23 December.

GREATER YELLOWLEGS: Rare inland in winter were up to six during December along the Little Saluda River at Lake Murray, S.C. (Tim Kalbach), two south of Raleigh on 17 December (Ken Knapp), and one in southwestern Northampton County, N.C., on 1 January (Harry LeGrand).

LESSER YELLOWLEGS: Eric Dean saw one on 15 December at Goldsboro, N.C., for one of the few winter records at an inland site.

SPOTTED SANDPIPER: One was flushed from a bank of the Cape Fear River at Raven Rock SP, N.C., by Leon Jernigan on 17 December.

WHIMBREL: Rare on the Outer Banks of North Carolina in winter was one observed by Henry Armistead and Carl Perry at Pea Island on 31 December.

LONG-BILLED CURLEW: One bird again wintered at Fort Fisher, N.C., as reported by Sam Cooper, Ricky Davis, and Kitty Kosh. Also at a semi-regular location was one seen at Cape Romain NWR, S.C., on 18 December by Tommy Graham.

LEAST SANDPIPER: Notable inland counts were 28 at Goldsboro, N.C., on 17 December (fide Eric Dean) and 10 at Columbia, S.C., on the same date (Lex Glover). Two were rare at a sand pit east of Rocky Mount, N.C., on 22 January (Ricky Davis).

DUNLIN: This species is regular inland in late fall; however, one at Goldsboro from 10 to 14 December was somewhat late, as noted by Eric Dean.

PURPLE SANDPIPER: One bird spent the winter on the rip-rap at the south end of the Oregon Inlet bridge (many observers).

COMMON SNIPE: A rather high count was 150+ at the Goldsboro Waste Treatment Plant as noted by Eric Dean in mid-February.

GREAT SKUA: One of the few confirmed records for the Carolinas was one found dead at Fort Macon SP, N.C., on 10 January by Scott Hartley.

LITTLE GULL: Along the North Carolina coast, one was seen at Bodie Island on 29 December by Bill Portlock, one was seen at Pine Knoll Shores on 4 February by Bob Odear, David Wright, and others, and five were seen at Bodie Island on 4 February by Brian Patteson.

COMMON BLACK-HEADED GULL: Sam Cooper noted an adult on 12 January just southeast of the Pamlico River, N.C., ferry landing (south shore). Another adult was seen by Mary McDowd at Ocean Isle Beach, N.C., on 1 February.

RING-BILLED GULL: An excellent count for the mountains was a peak count of 400 birds at a landfill at Rosman, N.C., during the winter of 1987-88 (Norma and Bill Siebenheller).

ICELAND GULL: A number of records came from the North Carolina coast, where rare but regular in winter. A first-year bird was seen by Paul McQuarry at Wanchese on 29 December, a second-year bird was observed by John Wright and Russ Tyndall at Cape Hatteras point on 14 January, and an adult was seen at the Newport landfill on 3 February by Mike Tove and others and again on 5 and 6 February at Morehead City by David Wright and Taylor Piephoff.

LESSER BLACK-BACKED GULL: John Fussell noted four different birds at the landfill near Newport, N.C., from 2 to 7 February. Birds were also reported in that state from Carolina Beach, Masonboro Inlet, Fort Macon, and Cape Hatteras.

GLAUCOUS GULL: An immature was seen by Bonnie Harris at Long Beach, N.C., on 31 December, apparently the only Carolina report for the winter.

BLACK-LEGGED KITTIWAKE: Single birds were reported four times along the North Carolina coast: at Oregon Inlet on 29 December (Bob Lewis), at Cape Hatteras point on 30 December (Mike Tove), at Cape Hatteras on 22 January (Merrill Lynch), and at Fort Macon SP, N.C., on 3 February (Glen Engelhardt).

FORSTER'S TERN: Tim Kalbach reported that a few birds over-wintered on Lake Murray at Dreher Island SP, S.C. Winter records of any tern species in the piedmont are very rare.

COMMON GROUND-DOVE: In Aiken County, S.C., two birds were seen by Peter Stangel at Aiken on 1 January, two were noted on 7 January near Silver Bluff Sanctuary by Dan Connelly, and two were also seen on 28 January by Connelly near Jackson.

LONG-EARED OWL: One was flushed from a pine forest at Santee NWR on 31 December. It was seen through a scope as it sat in a small cypress in a Carolina bay; Jack Stewart, Lula Stewart, Mark Kalbach, and Joy Kalbach were the observers. It had a "slender appearance and closely set 'ear' tufts". [Reports of this species are quite rare; most have details that are somewhat bothersome to me or are of "heard only" birds. Somewhat bothersome about this report was that a second owl was seen in another cypress about 15 minutes later that appeared larger and more robust and that was identified tentatively as a Great Horned Owl.—HEL]

SHORT-EARED OWL: Inland records are always of interest; thus, notable were one seen near Creech's Pond south of Charlotte (in both states) on 31 December and 1 January (Taylor Piephoff, Heathy Walker), and one flushed from a roadside ditch in northeastern Hyde County, N.C., on 21 January (Merrill Lynch).

NORTHERN SAW-WHET OWL: Scott Hartley found one dead at Fort Macon SP on 29 January, and a live bird spent the entire winter in a yard in Buxton, N.C. (fide Marcia Lyons). [Whether this species winters more"commonly" along the coast than inland might be difficult to determine, but there have been a surprising number of coastal records, relative to those inland, in the past 20 years.—HEL]

WHIP-POOR-WILL: Lex Glover heard one calling at Lugoff, S.C., on the unusual date of 2 February. The winter distribution of the species is poorly known in the Carolinas because of its nocturnal habits and silent nature.

RUBY-THROATED HUMMINGBIRD: One was collected at Kingstree, S.C., on 10 December by S. P. Rodgers for the first verified winter record for the state (fide Will Post). There were records of Archilochus hummingbirds of unknown species from feeders in three locations in Carteret County, N.C. (fide John Fussell); all birds were females or immatures. A female banded by Dorothy Foy at Oriental, N.C., on 13 December was identified as a Ruby-throated.

EASTERN WOOD PEWEE: Likely the first verified winter record for the Carolinas was one collected by S. P. Rodgers at Kingstree, S.C., on 28 December. The bird was identified conclusively by Steve Cardiff and Van Remsen at Louisiana State University (fide Will Post).

PURPLE MARTIN: This is the first returning landbird migrant from the tropics in late winter; however, two were very early on 10 January at Middleton Place near Charleston (Bruce Krucke).

TREE SWALLOW: Norma Siebenheller reported that at least three pairs nested in dead tress in a large private lake just above Thunder Lake in southeastern Transylvania County, N.C., during the summer of 1988.

NORTHERN ROUGH-WINGED SWALLOW: Extremely rare in winter was one seen at a quarry near New Bern, N.C., on 19 December and again on 14 January by Bob Holmes and John Fussell.

BANK SWALLOW: Seldom if ever previously reported in the Carolinas in winter, one was well-described by Steve Calver on the late date of 3 December at Savannah NWR, S.C.

CLIFF SWALLOW: During the winter Simon Thompson noted two Cliff Swallow nests from the previous summer under the I-26 bridge over Lake Bowen, Spartanburg County, S.C.

BARN SWALLOW: One lingered at Goldsboro through 9 December, as noted by Eric Dean. Another was late at a quarry near New Bern, N.C., on 19 December (John Fussell, Bob Holmes). One was several weeks early at Bear Island, S.C., on 22 February (Merrill Lynch).

COMMON RAVEN: James Coman reported that pairs and small groups were seen at many sites in Alleghany County, N.C., during 1988, mainly at elevations below 3000 feet.

SEDGE WREN: One wintered well inland in northern York County, S.C., where it was seen on 16 January by Taylor Piephoff and as late as 22 February by Heathy Walker. Another was seen at Raleigh on 17 December by Jim Mulholland and Will Kimler.

MARSH WREN: Merrill Lynch observed one at a marsh near Goldsboro on 17 December.

BLUE-GRAY GNATCATCHER: Eric Dean saw three at Goldsboro on 7 December, and one was seen as late as 11 February. Another was rare in the piedmont in winter at Chapel Hill on 26 December (Henry Link, Jonathan Steere). One was noted by Peter Yawkey along the causeway at Lake Mattamuskeet, N.C., on 30 December.

GRAY-CHEEKED THRUSH: Greg Cornwell observed one (gray cheeks, no eye ring) at Greenville, S.C., on 17 December; no call was noted. [I continue to be skeptical of thrushes other than Hermit and the occasional Wood reported in winter. The South Carolina Bird Records Committee should evaluate the sighting.—HEL]

WOOD THRUSH: One was carefully studied at Lake Brandt near Greensboro on 29 December by Henry Link and Herb Hendrickson. The details included "dark black round spots, reddish head, and lack of reddish in the rump and tail".

GRAY CATBIRD: Most unusual for the Fall Line in late winter was one seen on 20 February, with 10 inches of snow on the ground, near Enfield, N.C., by Merrill Lynch.

LOGGERHEAD SHRIKE: Always of note in the mountains, one was seen at Rosman, N.C., from January to March 1988 and again from December 1988 to February 1989 (Norma Siebenheller). Locally rare was another shrike that spent the winter at Fort Fisher, N.C. (Kitty Kosh, Ricky Davis).

BLUE-WINGED WARBLER: Ruth Young reported that a male drove a male Golden-winged Warbler off of its territory near Fairview, Buncombe County, N.C., in the spring of 1988. The Blue-winged was not seen after late May, and neither species apparently nested locally. The Blue-winged is very rare in North Carolina in summer outside of Cherokee County, and definite proof of nesting is absent.

ORANGE-CROWNED WARBLER: One wintered at the feeder of Elisabeth Lee in Lumberton, N.C., remaining at least to 10 March. Bob Holmes saw the bird on 18 and 19 February. Rare in the piedmont was one noted by Lynn Moseley near Greensboro on 17 December.

NORTHERN PARULA: Mike Tove saw a female or immature on 16 December at Lake Wheeler near Raleigh, for a very rare piedmont winter record.

YELLOW WARBLER: One was seen by Tim Kalbach on the Santee refuge Christmas count on 31 December for one of the few Carolina winter records. [An excellent sketch was provided by the observer.—HEL]

CAPE MAY WARBLER: Always notable in winter was one studied carefully by David Disher at Winston-Salem, N.C., on 24 January.

BLACK-THROATED GREEN WARBLER: The first winter specimen and second winter record for South Carolina was of an adult male collected at Kingstree by S. P. Rodgers on 24 December (fide Will Post).

YELLOW-THROATED WARBLER: Though this species is somewhat regular in the Wilmington area in winter, one was nonetheless of interest at Greenfield Lake on 30 January (Kitty Kosh).

PRAIRIE WARBLER: Sam Cooper had a good mid-winter record of one near Aurora, N.C., on 27 January. Others in that state were one near Raleigh on 16 December (Mike Tove) and one along the western shore of Lake Phelps on 30 December (Merrill Lynch).

SWAINSON'S WARBLER: During several summers in the late 1980s, Norma and Bill Siebenheller noted 12 singing males along the East Fork of the French Broad River, along Glady Fork, and along nearby small streams in extreme southern Transylvania County, N.C. The elevations range from 2200 to 2900 feet.

OVENBIRD: Very rare in winter in South Carolina were one seen by Robin Carter at Santee NWR on 26 December and one seen by Teddy Shuler at the Santee Coastal Reserve on 18 December. A record winter count for North Carolina was a total of nine birds, eight seen by the Henry Armistead party, at Buxton on the Cape Hatteras count on 30 December.

YELLOW-BREASTED CHAT: This secretive species winters very sparingly in the lower coastal plain of the Carolinas. Winter records included two seen near New Bern on 19 December by Bob Holmes and John Fussell, and one found dead in Gloucester, Carteret County, N.C., on 28 February by Karl Pace.

SUMMER TANAGER: Cheryl Phillips and party saw two birds, one an adult male, at Moore's Landing near Charleston on 31 December.

SCARLET TANAGER: One of the few winter records for the Carolinas was of one seen at Greensboro on 28 December by Henry Link, and by Herb Hendrickson on the following day. Details provided by Hendrickson included "an obvious *Piranga* bill, greenish-yellow body color, black wings and tail, with two red feathers in the left axillary region".

BLUE GROSBEAK: A first winter specimen for South Carolina was provided by S. P. Rodgers, who collected an immature male at Kingstree on 16 January. One was rare in North Carolina at the feeder of Jim and Elizabeth Pullman in southern Durham County on 27 February.

PAINTED BUNTING: Marcia Lyons reported that an adult male spent the winters of 1987-88 and 1988-89 at feeders in Wendy Riopel's yard in Buxton, N.C. As many as three birds wintered in the yards of Shirley Cuthrell and Lois Howland in Beaufort, N.C. (fide John Fussell), and an adult male spent part of the winter at Cape Carteret, N.C. (fide Betsy Gallagher). Away from yards was a "green" individual in weedy fields near Southport, N.C., on 31 December (Jeremy Nance).

AMERICAN TREE SPARROW: One of the relatively few records for South Carolina was a bird seen in comparison with other sparrows, including Chipping, Field, and Swamp, near Plantersville, Georgetown County, on 17 December, as reported on the Litchfield-Pawleys Island Christmas count. The observer's name was not given.

VESPER SPARROW: One was rather rare in winter near Fairfield, N.C., on 21 January, as seen by Merrill Lynch.

LARK SPARROW: Always of interest in winter, one was seen from 29 December to 1 January at Fort Fisher, N.C., by Maurice Barnhill, Ricky Davis, and Kitty Kosh.

GRASSHOPPER SPARROW: This species probably winters regularly at the Savannah River Plant, S.C., where four were seen on 3 February by Barny Dunning and others. On the same day, one was noted nearby at Ellenton Bay by Dunning, Bryan Watts, and Brent Danielson. One was observed by John Fussell and Bob Holmes near New Bern on 19 December.

LE CONTE'S SPARROW: There were two highly significant records from North Carolina, where poorly known in winter. These records suggest that a few birds might over-winter with some regularity in that state. Two were noted on several dates from 27 December to 29 January at the Tidewater Research Station near Roper by Harry LeGrand, Ricky Davis, and others. Sam Cooper found four birds near Southport on 31 December, and at least one bird was still there on 28 January (Kitty Kosh). At these two sites, the birds were in very fine, knee-high grasses among large flocks of Savannah Sparrows. The species is likely regular at Bear Island, S.C., where Robin Carter flushed one from a wet broomsedge field on 21 January.

LINCOLN'S SPARROW: Records in North Carolina were: one on 14 December near Aurora (Sam Cooper); one at Goldsboro from 3 to 17 December (Eric Dean, Merrill Lynch); one at Lake Benson near Raleigh on 17 December (Ken Knapp); one near Roper on 29 December (Lynch); two just west of Lake Phelps on 30 December (Lynch); one just south of Lake Phelps on 14 January (Harry LeGrand, Ricky Davis, John Wright); and one at the south side of Pungo Lake on 11 February (Wright). One was observed by Simon Thompson on 21 December at Savannah NWR, S.C. A belated report, but significant because of the mountain setting, was one seen along a brushy ditch of the Brevard, N.C., airport on 5 February and again on 2 April 1987 by Norma and Bill Siebenheller.

WHITE-CROWNED SPARROW: Although regular in small numbers in fall along the North Carolina coast, the species is rare in winter. Thus, of note were two immatures seen near Southport on 31 December by Jeremy Nance, an adult seen by Kitty Kosh on 1 January at Fort Fisher, an adult in John Fussell's yard in Morehead City from 22 January to the end of February, and two seen by Bob Russell at Wainwright Island on 2 January.

LAPLAND LONGSPUR: A record count for the Carolinas was the 90 tallied on the Pettigrew SP, N.C., Christmas count on 30 December; the birds were in extensive plowed fields just west of Lake Phelps. Others in that state, where somewhat regular in the northern half of the coastal plain in large fields, were five near Red Hill in Edgecombe County on 26 December (Ricky Davis), 14 on the Roanoke Rapids count on 1 January (fide Merrill Lynch), one near Goldsboro on 17 December (Harry LeGrand), and four at Cape Hatteras point on 10 December (Lex Glover, Kevin Calhoon). South Carolina records were six at Huntington Beach SP on 17 December (Dennis Forsythe) and one near Aiken on 26 December (Peter Stangel).

SNOW BUNTING: There was a disappointing "flight" into the Carolinas this winter, with the only reports being of four birds seen from 30 December to late February at Cape Hatteras point (Bob Lewis and others).

YELLOW-HEADED BLACKBIRD: An adult male was observed at a feeder on Edisto Island,S.C., by Angie Hunt from 13 to 16 April (fide Will Post).

BREWER'S BLACKBIRD: This species definitely winters regularly at Open Grounds Farm in Carteret County, N.C., as the large flock noted a year ago was detected again this winter. Derb Carter and Ricky Davis counted 47 birds there on 3 February. The species was reported (one bird?) in a mixed blackbird flock in northern Mecklenburg County, N.C., on 14 January by Heathy Walker. In South Carolina, a male was seen by Robin Carter at a dairy farm near Goat Island Resort on Lake Marion, Clarendon County, on 26 December.

ORCHARD ORIOLE: An adult male was collected at Kingstree on 24 December by S. P. Rodgers for the first winter specimen and second winter report for South Carolina (fide Will Post).

RED CROSSBILL: The only report for the fall or winter was of a flock of 15, including four juveniles with uncrossed bills, on 8 November at Cedar Mountain, Transylvania County, N.C. (Norma and Bill Siebenheller).

EVENING GROSBEAK: The flights of this species and the Pine Siskin were essentially non-existent into the Carolinas during the fall and winter. The only grosbeak reports were of single feeder birds in New Ellenton, S.C., from 20 to 22 January (fide Peter Stangel) and in Zebulon, N.C., in February (Ricky Davis). Purple Finches were also in unusually low numbers.

BOOK REVIEWS

OSPREYS A NATURAL AND UNNATURAL HISTORY

Alan F. Poole. 1989. Cambridge University Press, 32 East 57th Street, New York, NY 10022. Illus. Hardback. 246 p. $27.95

While the phrase has probably been overused, this book could be appropriately sub-titled "Everything you ever wanted to know about Ospreys but were afraid to ask". Fear not, most of your questions will be answered in this delightful text. Alan Poole has reviewed all of the relevant literature on Ospreys through 1987 and presented it in a clear, logical fashion that people with any interest in birds will have no difficulty comprehending.. Poole's presentation is aided significantly by his own extensive research experience with the species on Long Island Sound, Chesapeake Bay, and Florida Bay.

The Osprey is a bird that has caught the attention and the admiration of people around the world for its size, position in the food chain, and its conspicuous nesting habits. It is a bird that appears to have accommodated to human beings fairly well. They are not only tolerant of human activity near their spectacular nests, but in some areas seem to prefer human-provided sites for nesting and frequently include all kinds of human artifacts in the structure of the nest itself.

This close physical and emotional association between bird and human appears to have been fortunate for both as Poole relates in the now well-known tale about nesting failures caused by DDT and other organo-chlorines. The spectacular decline in the numbers of Ospreys in southern New England is largely responsible for discontinuing the use of this class of insecticides throughout the country. The recovery of the depressed Osprey populations was almost immediate. What effect the continued use of these chemicals would have had on human populations is still a subject of intense debate. It came as something of a surprise to me how few Osprey populations were affected by organo-chlorine poisoning. Primarily, it was the populations in the northeastern United States, and to a lesser extent, those around the Chesapeake Bay. These are the populations surrounded by some of the densest populations of humans, who have access to some of the most effective means of public communication ever devised.

The future for Ospreys looks bright. Although humans continue to modify the natural habitats in ways that are detrimental to many species, Ospreys continue to exhibit a range of adaptability that promises to keep them with us into the foreseeable future.

COLLINS HANDGUIDE TO THE BIRDS OF THE INDIAN SUB-CONTINENT

Martin Woodcock. 1980. Republished 1989 by The Stephen Greene Press, Lexington, Massachusetts; distributed by Viking Penquin Inc., 40 W. 23rd Street, New York, N.Y. 10010. Illus. 176 pp. $11.95.

Here is a book designed for the casual tourist to the Indian sub-continent. Of the approximately 1250 species of birds recorded from the region, the most common (or more interesting) 273 are illustrated in color. Woodcock's paintings, based on my limited experience with several of the species in the field, are certainly acceptable. They are good clear drawings that demonstrate the appropriate markings of the species. An additional 272 species are described briefly (and some are illustrated in black and white) in a synopsis of families at the back of the book.

Clearly, the biggest drawback to the Handguide is that it only covers about 43% of the known birds (and only half of those are covered thoroughly). The alternative is to invest in the ten volume Handbook of the Birds of India and Pakistan by Ali and Ripley which is not exactly portable and will cost you considerably more than the modest asking price of this volume.

My guess is that the casual visitor who wants to identify the birds most commonly encountered will be more than satisfied with this aid.

NOCTURNAL FLIGHT CALLS OF MIGRATING THRUSHES

Bill Evans. 1990. Sound Tracker, P.O. Box 46, Mecklenburg, NY 14863. Forty-eight minute cassette with liner notes. $10.00 postpaid.

Bill Evans' cassette opens up a whole new world for average birders by giving us an excellent tutorial on how to identify five common species of North American thrush by their nocturnal flight call-notes. Side A begins with short sequences of the nocturnal flight notes of Gray-cheeked Thrush, each preceded by an identifying announcement. This summary, located right at the beginning of the tape, is obviously designed for use in the field, as we struggle to associate the squeaks and chips we hear in the pre-dawn spring of fall sky with the tutorial on the tape.

The summary is followed by the tutorial proper. Evans goes over each species in turn, giving several long cuts of their nocturnal flight calls. The then compares the nocturnal calls to the species; diurnal calls, and contrasts each species with the other thrush species that you might confuse it with. Side A finishes with a brief discussion of other calls that you might confuse with nocturnal thrush calls, such as the call of the Bobolink, giving cuts of those calls. Evans even admits that there are some calls he cannot yet identify, and gives examples of them. Finally Side A ends with three practice sequences,which mix and match various species' calls. (Answers are given on the cassette's liner notes.)

Side B consists of four long cuts, unedited, from nocturnal recording sessions. You hear thrush notes against typical night sound backgrounds—insect noises, owls, cows lowing, distant trains and airplanes. In each case the thrush notes are faint at first, then gradually increase in volume as the birds descend from migration at dawn. You find yourself saying, "Hey, there's a Gray-cheek", or, if you listen from a comfortable couch, you fall fast asleep. In either case the effect is fantastic.—Robin Carter.

COLLINS GUIDE TO TROPICAL PLANTS

W. Lötschert and G. Beese. William Collins Sons & Co. Ltd., London. 1981 (reprinted 1988 by the Stephen Greene Press, Lexington, Massachusetts; distributed by Viking Penguin Inc., 40 W. 23rd Street, New York, N.Y. 10010). ISBN 0 00 2191121.

This introduction to tropical plants will prove a good companion for the traveler first visiting the tropics or tropical botanical gardens. Although the book purports be address both professional and amateur botanists, the amateur will find it much more useful as a colorful introduction to the diversity of tropical ornamental and economic plants. These are the plants that the tourist is most likely to encounter on a visit to the tropics. The plates and brief descriptions vividly portray the plants most commonly seen in markets and streets in many tropical countries. For these reasons this book could serve as an interesting memoir of a vacation. As a guide, it will provide an instructive companion for a visit to one of this country's tropical botanical gardens, such as Fairchild Tropical Garden (Miami) or Waimea Falls Park (Oahu, Hawaii). Timber trees and medicinal plants have been excluded from the book, which is just as well considering the enormous number of plants in these two categories and the infrequency that they are seen by the amateur botanist.

The book is divided into three main sections: Introduction, Ornamental Plants, and Economic Plants. In addition, there are 274 color photographs that fill just under one third of the pages. The first section introduces the reader to the general features of the tropics and of tropical plants. Sections on tropical plants in mythology, art and stamps are included. Each of the other sections consists solely of descriptions of individual plants, keyed to their photographs. In addition to a nontechnical description of each species, information is provided on flowering time, origin, distribution, and ecological requirements.

Unfortunately, no key is provided, making it difficult to identify unknown plants despite the authors' protestations to the contrary. Despite this shortcoming, Collins Guide to Tropical Plants can serve as a stimulating introduction to the diversity of tropical ornamental and economic plants.—Bruce K. Kirchoff

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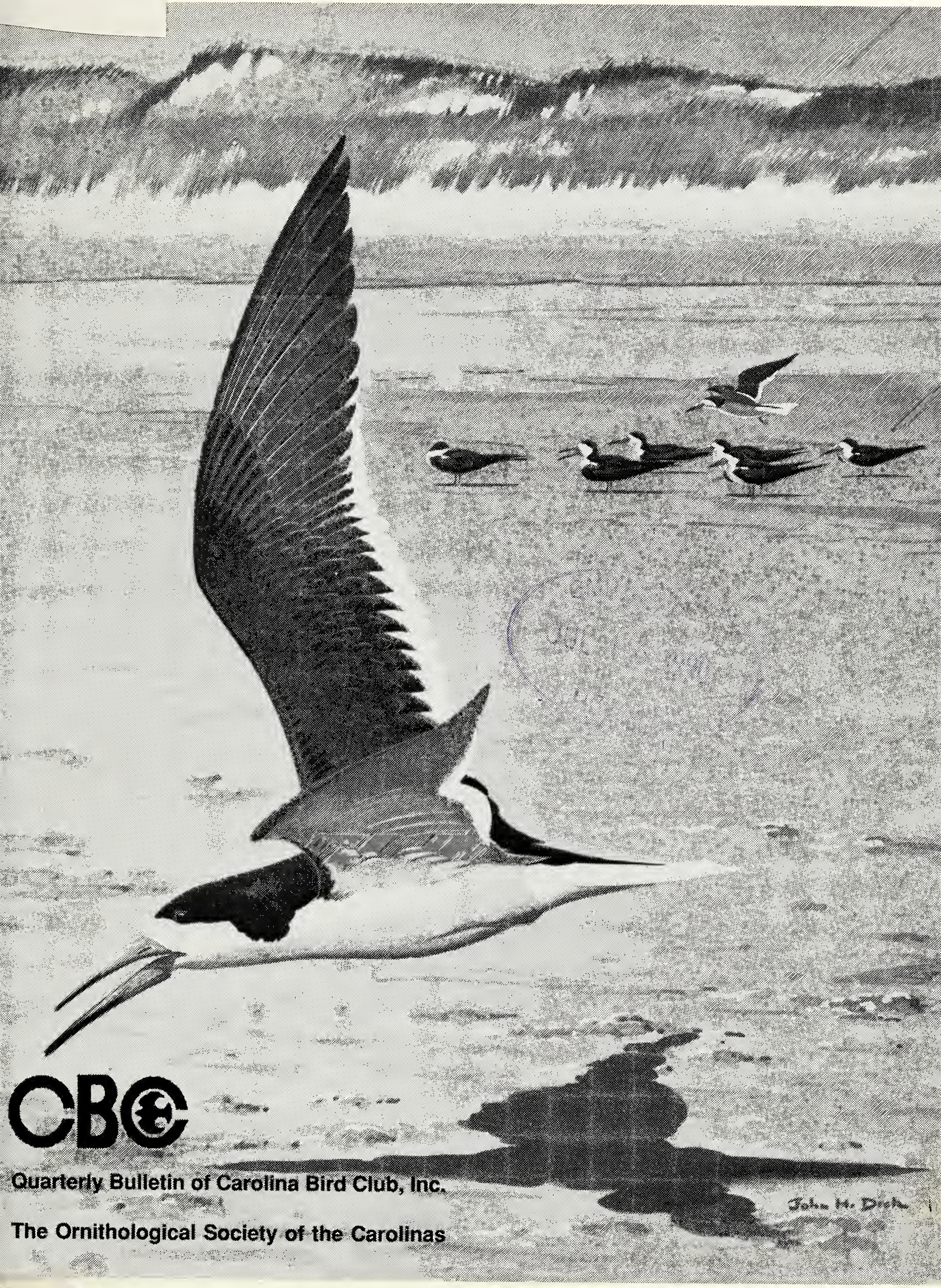

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OUR COVER—Please consult the brochure in the center of this issue of The Chat for how you may obtain a copy of this Black Skimmer print by John Henry Dick.

General Field Notes

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Publication of any unusual sightings of birds in the Field Notes or Briefs for the Files does not imply that these reports have been accepted into the official Checklist of Birds records for either North or South Carolina. Decisions regarding the official Checklists are made by the respective State Records Committees and will be reported upon periodically in THE CHAT.

Unusual Nest-site Tenacity of a Carolina Wren

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Mr. B. Ashley of Abbeville, Abbeville County, South Carolina, recited the following information to me about the unusual nest-site tenacity of a Carolina Wren (*Thryothorus ludovicianus*), which took place on his Abbeville farm from late April through early May 1989.

In late April, Mr. Ashley discovered a pair of Carolina Wrens building a nest in a recess of a tractor body. The bulky nest contained no eggs on that day. In a few days, the nest contained 2 eggs; two days later, it contained 4 eggs, afterwhich no more eggs were laid. The tractor was used for the first time in 1989 on the day 2 eggs were in the nest. After several hours, the tractor was parked within one foot of its original position. For about a week thereafter, the tractor was used for several hours each day, usually around midday, after which it was returned to its regular parking place. The incubating female (Laskey, 1948; Nice and Thomas, 1948) was repeatedly flushed off the nest prior to removal of the tractor from the shed. After one week elapsed, the tractor was removed from the farm for at least three days. When it was returned, the wren did not resume incubating the eggs; hence the pair had abandoned the nest. Mr. Ashley then removed the nest and eggs.

For the ensuing week, the tractor was not used. A pair of Carolina Wrens, presumably the same pair, built a complete nest in the identical site, but the female laid no eggs nor did any adult roost in the nest. Mr. Ashley removed this nest after he was convinced the pair had abandoned it.

The chosen nest-site, a recess next to the engine of a tractor, is not unusual because Carolina Wrens may choose any recess or cavity in appropriate habitat that can contain their bulky nest (Bent, 1948; Laskey, 1948; Nice and Thomas, 1948; Burleigh, 1958; Harrison, 1975; pers. obsv.; E. F. Potter, pers. comm.). Carolina Wrens are also highly tolerant of disturbance near or at the nest, including removal and replacement of the nest; or removal of the nest to a new location nearby, during all stages of the nesting cycle (op. cit.; Grady, 1943; Sprunt and Chamberlain, 1949). What is unusual about the Abbeville pair is that the female completed laying her clutch of 4 eggs without interruption and that she incubated the eggs for about a week, despite the disruption of having the nest-site, the tractor, absent for several hours each day for about nine days. Higgins (1953) discovered that a female Carolina Wren in Massachusetts did not interrupt egg-laying when her nest (and nest-site) was moved once after she laid her third egg, as the wren continued to lay her fourth and fifth eggs in succession at the new location. This nest was successful. At Four Oaks, Johnston County, N.C., a pair of Carolina Wrens built a nest in the grill of a van which went on several trips a day during the nestling period in two successive years (The News and Observer, Raleigh, N.C., 7 June 1987; reference provided by E. F. Potter). The young were fed by the adults when the van returned home each day. At Charleston, S.C., E. Cutts watched a pair of Carolina Wrens carry a nesting attempt to 5 eggs in the rear bumper of an active automobile (Aud. Field Notes 11:398, 1957).

Inattentive periods of Carolina Wrens studied in Tennessee and Arkansas were remarkably similar, with means of 33 min 30 sec and 31 min and ranges of 9-70 min and 8-84 min, respectively (Laskey, 1948; Nice and Thomas, 1948). Inattentive periods of several hours each at Abbeville, S.C., longer than the maximum limits recorded in Tennessee and Arkansas, did not cause the female to abandon the nest because, I believe, the engine heat provided a natural incubator while the wren was unable to incubate the eggs. This permitted the wren to resume the incubation of warm eggs when the tractor was returned to the shed. Mr. Ashley told me the nest was always very warm while the tractor was running; indeed, he finally removed the second nest because he thought a potential fire hazard existed. Because the wrens selected the identical nest-site for their second nest, they may have abandoned the nest after the three-day plus absence of the tractor during the first attempt, not because of the tractor's absence *per se*, but because the eggs were chilled and no longer viable. The unusual nest-site tenacity of this pair of Carolina Wrens may have been abetted by a hot engine, regardless of the particular attraction of the cold tractor as a nest-site to this pair of wrens.

Acknowledgments. I thank D. M. Forsythe and E. F. Potter for reviewing this note. A record in the Southern Atlantic Coast Region of Audubon Field Notes is not listed in the Literature Cited section.

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Dickcissel Found Breeding in Coastal South Carolina

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At 1030 h on 22 May 1988, S. C. Langston and I discovered the nest of a pair of Dickcissels (*Spiza americana*) at Patriot's Point, Mt. Pleasant, Charleston County, S.C. The nest, approximately 15 cm in diameter, contained five fresh blue eggs; and was located 40 cm above the ground in a small weed. The nest was located in a field dominated by mixed clovers (*Trifolium* spp.) 10-60 cm in height, with scattered small Red Mulberry (*Morus rubra*), Tamarisk (*Tamarix gallica*), *Baccharis* sp. and Hackberry (*Celtis laevigata*) trees about 1-3 m tall.

Prior to this record, the Dickcissel was considered a rare and erratic summer resident in the middle and upper portions of South Carolina with the first recent indications of breeding being from Spartanburg (Cannon, 1956). On the coast, however, the Dickcissel was considered a very rare and erratic winter visitor (Sprunt and Chamberlain, 1949). This record constitutes the first known nesting of this species on the South Carolina coast. The nearest previous breeding locations have been about 150 km from the coast in Aiken and Richland counties.

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Dickcissels Breed In Darlington County, South Carolina

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I confirmed breeding of Dickcissels (*Spiza americana*) at one locality beside SR-398 near the Darlington County Airport, South Carolina, in 1989. The locality is on the gently sloping Upper Coastal Plain, 60 m above sea level, outside the Sandhills Province.

I visited the locality five times, for a total of 5 h from 7 May to 18 June. I found two pairs present on 7 May. One pair had a territory centered on a "briar" hedge and motte, separated by the road, hereafter called the roadside pair. The other pair had a territory centered on a scrubby hedge away from the road, hereafter called the non-roadside pair. Both pairs inhabited a large and very dense old field containing a variety of grasses and forbs, though with few *Lespedeza*, and with scattered taller shrubs. The vegetation of the old field averaged 1-1.2 m high (new growth 0.7-1 m; old growth 1-2 m).

I confirmed breeding on 18 June. At 1700 h, I located an alarmed pair and shortly thereafter flushed the four juveniles together, all with short tails, within the activity space of this non-roadside pair. Earlier, on 9 and 11 June, the female of this pair was bringing grasshopper nymphs to nestlings at a presumed nest-site in a hedge, containing *Rubus* and forbs, which bordered a deep ditch and adjacent hayfield. Otherwise, the pair was very agitated, both calling constantly. Earlier, on 7 and 11 May, the territory of this pair was centered along the same hedge, but 100 m away, near the site where the family was flushed. After the pair moved, the new territory was no longer contiguous with the territory of the roadside pair. The male of this roadside pair successfully intruded on the territory of the other pair on 11 May, continuing to sing constantly, and may have expelled the other male from its original territory.

The male of the roadside pair spent the majority of his time patrolling its territory and singing (song easily distinguished from the song of the other male; recordings archived at FMNH), while occasionally consorting with the female in the briar patch, where she was apparently incubating eggs. The fate of this nesting attempt is unknown.

Both sexes of the roadside pair expelled an intruding female Blue Grosbeak (*Guiraca caerulea*) several times from the Dickcissel's specific spot in the briar patch, where both species nested. This male Dickcissel frequently sang on the nearby telephone wire close to a singing male Indigo Bunting (*Passerina cyanea*), but the male Blue Grosbeak and this Dickcissel almost always sang far apart on the wire. The non-roadside pair never behaved aggressively toward a pair of Indigo Buntings, which nested in the hedge within 5 m of the Dickcissel's nest.

Associated probable, presumed, or confirmed breeding species within the territories of both Dickcissel pairs are Northern Bobwhite (*Colinus virginianus*), Blue Grosbeak, Indigo Bunting, Field (*Spizella pusilla*) and Grasshopper (*Ammodramus savannarum*) sparrows, Red-winged Blackbird (*Agelaius phoeniceus*), and Eastern Meadowlark (*Sturnella magna*). One pair of Common Yellowthroat (*Geothlypis trichas*) and Northern Cardinal (*Cardinalis cardinalis*) also nested in the hedge and motte within the territory of the roadside pair. Mourning Dove *(Zenaida macroura)* may have nested within the territories of both pairs.

My observations of the breeding behavior of these two pairs of Dickcissels agree with my earlier observations in Marlboro County, South Carolina (McNair, 1989).

Acknowledgements. I thank J. W. Hardy for archiving my recordings of Dickcissel vocalizations at the BioAcoustics Laboratory, Florida Museum of Natural History. I thank D. M. Forsythe for reviewing this note.

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Dickcissels Breed in Marlboro County, S. C.

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I confirmed breeding of Dickcissels (*Spiza americana*) at two locations in Marlboro County, S. C. in 1988. Possible breeding was noted at two other localities in the county.

Localities - The two confirmed locations are 2.5 km apart. The first is on the Dean property beside SR-113, 2 km below the North Carolina state line. The second is on the Wallace property, beside US Route 1, 4 km below the state line. Both localities, as is the case with the two possible breeding sites, are on the level to gently sloping Upper Coastal Plain at 65 m above sea level, outside the Sandhills Province. The two possible breeding sites are on the grounds of Victory Christian Center, on SR-47, Bennettsville, and beside SR-482 near the Bethel Church, 1 km N of SC Route 9, 9.5 km NW of Bennettsville.

I visited the two confirmed breeding locations five times each for a total of 7.5 h from 10 to 23 June, and 20 July at the Dean property, and for a total of 6 h on 11 and 23 June and 20-29 July at the Wallace property. I found two pairs and an unmated male at each locality. I watched an unmated male sing for 45 min on 16 June at the Victory Christian Center and another unmated male sing for 50 min on 24 June at the Bethel Church locality.

Habitat - The two pairs at the Dean property inhabited a 2.5 ha rectangular, very dense, 4-5 year-old *Lespedeza* pasture. The vegetation was 1.2 to 1.7 m high in June. The unmated male at this site occupied a larger pasture with younger, less dense *Lespedeza* mixed with grasses and forbs. The two pairs at the Wallace property inhabited separate *Lespedeza* pastures, of varying height and density, mixed with some grasses. Some *Lespedeza* patches on both territories were over 2 m high in June. The unmated male at this locality frequented a habitat similar to that frequented by the unmated male at the Dean property. The unmated male at the Victory Christian Center also occupied habitat similar to those of unmated males at both confirmed breeding localities. The Bethel Church unmated male occupied a very different habitat, a small shrubby pasture adjacent to a rural yard and grassland, and with a *Rubus* - grassland patch that had a dense matted ground cover similar to the habitats frequented by the other birds.

Breeding Confirmation - I confirmed breeding at the Dean property on 23 June. At 1904 h, I flushed a female and two juveniles, one of which had a short tail. I saw one fully fledged juvenile at close range at this site on 20 July. At the Wallace property, I confirmed breeding on 24 July when I flushed 2-3 juveniles, which did not permit a close approach, and which were not with adults.

Breeding Phenology - Nesting was underway when I first visited each confirmed location on 10 and 11 June. At the Dean property, the male of the successful pair frequented the vicinity of the presumed nest site and accompanied the female, both near and away from the nest, during the nestling stage. Both sexes generally permitted me to approach them closely. The male often gave a hard "*chink*" note and a metallic "*tic*" note in response to intruders or predators, and to maintain contact with the female. During the nesting stage, the male sang only occasionally.

The other pair at the Dean place did not breed successfully. During June, this second male sang frequently, rarely called, and did not accompany the female. Once, on 16 June, the second female joined the male in its main song tree. I flushed this female only several times, and do not know if she nested.

At the Wallace property, the circumstances were similar, but neither pair nested as early as the successful pair at the Dean property. At the Wallace place neither pair appeared to have proceeded beyond the incubation stage: both males sang frequently but uttered no call notes, and on one occasion only, one male briefly accompanied a female. This male only began accompanying his female regularly on 23 June, though he sang frequently. In late July, this male accompanied his female, now tailless, and called regularly in the vicinity of a presumed nest site, while the female delivered food on 24 July. I am not sure which pair produced the 2 to 3 juveniles that I saw on 24 July, at another site, outside the activity spaces of both breeding pairs.

All males, mated and unmated, spent most of their time singing during June. On 16 June, the unmated male at the Dean property intruded on the other birds' breeding site, but quickly retreated, possibly in response to songs from both paired males. The unmated male at the Wallace property had shifted its territory by 20 July and still sang. The two paired males also still sang some on this date. In late July at both confirmed breeding localities, Dickcissels began to flock together, as I heard few of the hard "*chink*" notes, which are often given in agonistic encounters.

Vocalizations - Both sexes uttered a hard loud "*chink*" and a softer metallic "*tic*" call note. "*Chinks*" were used by alarmed birds against intra- or interspecific intruders near and away from the nest, either by separate individuals or as a pair traveling together. Pairs sometimes engaged in vigorous "*chink*" calling-bouts when I or a foreign male Dickcissel intruded on a nesting area. The breeding male displayed by occasionally jerking and fanning his tail to maintain the pair bond. "*Tics*" were used as contact notes between members of a mated pair or between individuals of a small post-breeding flock.

All eight adult males sang from telephone wires, the tops of shrubs or small trees at the border of their territories, or within their territories from the tops of *Lespedeza* or other forbs. Occasionally, Dickcissels sang in flight. All individuals' songs were different and recognizable, with the exception of the three Wallace property males, which I could not distinguish by ear. Songs and other vocalizations are archived at the Florida Museum of Natural History (FMNH). Individual plumage characteristics distinguished the Wallace property males, as well as the three at the Dean property. Males engaged in countersinging bouts frequently and occasionally sang at night. Several males sang briefly in response to my intrusion into the area.

Agonistic Behaviors - Other than countersinging, I saw few intraspecific agonistic interactions. On 10 and 22 June, the male of the successful pair on the Dean property twice briefly chased and expelled the other mated male when it approached the nesting female with food.

I also saw few interspecific interactions. Mated males at both confirmed breeding localities chased adult Field Sparrows (*Spizella pusilla*) four times. A displaying adult male Red-winged Blackbird (*Agelaius phoeniceus*) on 11 June once displaced a singing Dickcissel from the top of a *Lespedeza*. The nesting female at the Dean property repeatedly threatened me, opening her wings with carpals raised forward and calling "*chink*" when I approached the vicinity of her nest on 16 June.

Food - Small grasshoppers were abundant at all four localities and both sexes foraged on them. Both nesting females, one at each confirmed breeding locality, repeatedly brought grasshoppers to their nestlings (n=14). Once, on 10 June at the Dean property, while the female was repeatedly feeding young, the nesting male apparently brought food to the nestlings, an unusual behavior (Zimmerman, 1966).

Associated Species - Associated probable, presumed, or confirmed breeding species within the territories of the four pairs at the two confirmed breeding localities were Northern Bobwhite (*Colinus virginianus*), Blue Grosbeak (*Guiraca caerulea*), and Field Sparrow. In addition, numerous Red-winged Blackbirds and several Eastern Meadowlarks (*Sturnella magna*) were at the Wallace property only. Orchard Orioles (*Icterus spurius*) frequently visited both localities. These above species were usually found on territories of all four unmated male Dickcissels at all four localities. Breeding Grasshopper Sparrows (*Ammodramus savannarum*) were found in the grassier habitats at all four localities. Common Yellowthroat (*Geothlypis trichas*) also nested on the territory of the unmated male at the Dean property. Seven species characteristic of shrubby hedges and pastures also nested on the territory of the unmated male near the Bethel Church.

1989 Breeding Status - In 1989, Dickcissels occurred at both locations where breeding was confirmed in 1988. At the Dean property, one unmated male sang frequently from 21 May to 1 July (not detected thereafter) on a very large territory, with frequent territorial shifts, within habitats used by all three males in 1988. This male's song matched the song of the unsuccessful paired male of 1988 at this location, and of no other Marlboro County male in 1988 (recordings archived at FMNH).

At the Wallace property, one male was usually present 14 May to 18 July (the date of my last visit). This male's song was appreciably different from the song type of all three males at this location in 1988. This male's song did not match that of any other male present in 1988. Thus, I presume that this male in 1989 was a different individual. This male had a very large territory with frequent territorial shifts, within the habitats used by all three males in 1988. On 1 June 1989 the male intruded on the Dean property, 2.5 km away, and engaged in a countersinging bout with the other male. By 9-11 June, the intruding male was back on territory at the Wallace property, still unmated. On the date of my next visit, 21 June, the male was paired. Its territory was centered in dense *Lespedeza* favored by the paired birds of 1988. The female was apparently incubating on 1 July, but I failed to locate her thereafter, nor could I find any further evidence of nesting activity, and I believe the nesting attempt failed. Significant was the fact that the female was known to be absent from this breeding location for at least 29 days (14 May-11 June). The male benefitted by returning to his original location at the Wallace property to pair with this female.

Habitat at both locations was considerably more shrubby in 1989 than in 1988. The major change in avian species abundance was the increase of breeding Red-winged Blackbirds at both locations.

Previous Breeding Record - In 1984, I found Dickcissels 6 km S of St. Matthews, Calhoun County, S. C., near the junction of SC Route 6 and SR S-44 (Chat 49:26, 1985). This location was also in the Upper Coastal Plain. From 9 May to 6 June, I had six adult males and four adult females on territory in a roughly rectangular 4 ha wheat field covered with Kudzu (*Pueraria lobata*), approximately five years old. All females were accompanied by males. All birds were seen feeding on Grasshoppers. The only interspecific encounter I saw was the chasing of an intruding female Blue Grosbeak by two female Dickcissels in succession on 6 June. The only other species probably or presumably breeding within the Dickcissel habitat were Northern Bobwhites and Red-winged Blackbirds. Indigo Buntings (*Passerina cyanea*) visited the area occasionally.

Concluding Comments - My observations on the breeding behavior of both male and female Dickcissels agree with the literature (Long et al., 1965; Zimmerman, 1966; Gross, 1968; Schartz and Zimmerman, 1971; Patterson, 1984; Fretwell, 1986).

Acknowledgments - I thank J. W. Hardy for archiving my recordings of Dickcissel vocalizations at the Bioacoustics Laboratory, Florida Museum of Natural History. I thank D. M. Forsythe and H. T. Hendrickson for reviewing this paper. A sight record in "Briefs for the Files" of The Chat, compiled by H. E. LeGrand, Jr., is not listed in the Literature Cited section.

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Warbling Vireo at Santee NWR, South Carolina

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On 29 June 1989 Kalbach was birding in an agricultural area of the Bluff Unit of Santee National Wildlife Refuge, Clarendon County, South Carolina when he heard the song of a Warbling Vireo (*Vireo gilvus*). Kalbach is very familiar with the Warbling Vireo due to several years' residence in central Pennsylvania. He quickly located the singing bird, which he identified by sight as a Warbling Vireo. Kalbach notified Carter, who notified Glover. On the morning of 1 July 1989 a party consisting of Carter, Glover, and Caroline Eastman followed Kalbach to the site. The vireo could be heard singing from several hundred meters away, and was quickly located.

The bird was observed for about a half hour at distances of 10 to 30 meters as it sang and foraged in lakeside willow trees and a corn field. It was associating with an Orchard Oriole (*Icterus spurius*) and an Eastern Kingbird (*Tyrannus tyrannus*).

The bird was a medium-sized vireo, with an overall gray color. The underparts were whiter than the upper parts. The belly and vent areas were basically white. The bird had an indistinct white superciliary line, which was not outlined in black (such as is usually the case with a Red-eyed Vireo, *V. olivaceus*). There was no noticeable yellow hue to the underparts.

Carter obtained several minutes of recognizable sound recording of the bird's song and its scold note. A copy of this recording will be submitted to the South Carolina Species Records Committee for evaluation.

A search was made for a second Warbling Vireo, because the observed bird was acting very territorial. But no other vireo was found in the area. Because the species occasionally nests in the Coastal Plain of North Carolina it is possible that nesting could occur at Santee NWR, but no evidence of nesting was obtained. The bird was not relocated after 1 July, so it is best described as a summer vagrant or early migrant.

The sixth edition of the AOU Checklist (American Ornithologists' Union 1983:595-596) gives the breeding range of the Warbling Vireo east of the Rockies as: "southeastern Texas (casually), southern Louisiana, central Mississippi, northern Alabama, southeastern Tennessee, western North Carolina and Virginia." The range in migration is given as: "Migrates regularly through the south-central United States and eastern Mexico, rarely through the southeastern states east to southern Florida."

Post and Gauthreaux (Contributions Charleston Museum:18, 1989, p.49) assign the Warbling Vireo to the Provisional I list for South Carolina (one to three reported occurrences): "Two reports: 21 July 1956, Jocassee (Chat 20:82, 1956); 1 September 1958, Aiken (Chat 23:38-39, 1959)."

BRIEFS FOR THE FILES

HARRY E. LeGRAND JR.

(All dates 1989 unless otherwise indicated)

EARED GREBE: Always notable in the Carolinas, one was well described and sketched by Anne and Vernon Waters at Lake Waccamaw, N.C. The bird was in winter plumage and was observed on 8 April.

NORTHERN FULMAR: Ricky Davis saw two birds about 45 miles south of Morehead City, N.C., on 26 March. More unusual was the sighting from shore of a fulmar at Pea Island, N.C., with a flock of 15+ Northern Gannets on 20 April (Peter Worthington). This species is regular off the North Carolina coast in March and April, but the wintering grounds of these birds is a complete mystery.

BLACK-CAPPED PETREL: A very good count for South Carolina was 15 seen off Charleston on 14 May by Dennis Forsythe and Donna Clark.

MANX SHEARWATER: Ricky Davis observed two birds, in addition to a single Audubon's Shearwater, about 50 miles south of Morehead City, N.C., on 26 March.

BROWN PELICAN: One south of Greenville, N.C., on 10 March was notable away from the tidewater zone (John Wright).

GREAT CORMORANT: At Fort Fisher, N.C., where regular in winter, the peak count was 20 birds on 18 March, as noted by Sam Cooper. Six birds were still present on 26 May (Ricky Davis). One was seen by Scott Hartley at Fort Macon SP, N.C., on 6 April.

DOUBLE-CRESTED CORMORANT: Probably a record inland count was 635 tallied by Ricky Davis at Falls Lake near Durham, N.C., on 12 April. A total of 31 on 11 May was notable at Lake Townsend near Greensboro, N.C. (Herb Hendrickson). Locally rare were single birds at the Hartness Wildlife Refuge at Greenville, S.C., from 27 to 29 May (Greg Cornwell) and in flight near Brevard, N.C., on 8 June (Betty McIlwain).

ANHINGA: Sam Cooper noted one near Aurora, N.C., on 20 April; the species is not known to nest in Beaufort County.

LEAST BITTERN: Perhaps on territory were two heard calling near Tillery in Halifax County, N.C., by Ricky Davis on 7 May.

GREAT EGRET: Rather rare in the piedmont in spring were two birds seen by Herb Hendrickson and Peggy Ferebee at Lake Brandt in Greensboro on 16 April.

SNOWY EGRET: Rare at inland locales in spring, single birds were unusual near Greenville, N.C., on 3 April (John Wright), near Goldsboro, N.C., from 7 to 12 May, with five birds on 12 May (Eric Dean), and at Silver Bluff Sanctuary in Aiken County, S.C., on 16 April (Dan Connelly).

TRICOLORED HERON: Quite unusual in spring was one seen by Eric Dean near Goldsboro, N.C., on 9 May.

CATTLE EGRET: Good counts for the upper coastal plain were 30 in central Halifax County, N.C., on 2 May (Frank Enders) and 35+ near Goldsboro on 12 May (Eric Dean).

BLACK-CROWNED NIGHT-HERON: Though a regular migrant through inland parts of the Carolinas, birds are seldom found because of their nocturnal habits. The only spring report inland was of one near Pineville, N.C., on 7 May (Heathy Walker).

YELLOW-CROWNED NIGHT-HERON: This species has surprisingly nested in Charlotte, N.C., on previous occasions, and a nest was discovered on 7 May in a residential part of that city. Heathy Walker saw an adult on the nest. Another adult was seen at Jordan Lake in Chatham County, N.C., on 30 April by Dan Kaplan and Steve Graves.

GLOSSY IBIS: Single birds appeared in the interior coastal plain of North Carolina on 4 April near Greenville (John Wright), on 7 May at Goldsboro (Gene Howe, Eric Dean), and on 30 May at Fayetteville (Philip Crutchfield).

BLUE-WINGED TEAL: Three late birds were seen by Philip Crutchfield at Fayetteville, N.C., on 16 May.

RING-NECKED DUCK: Jeremy Nance saw a rather late male on 2 May at Long Beach, N.C.

GREATER SCAUP: Rare and late was one studied on Lake Julian near Arden, N.C., on 6 May by Ruth and Jerry Young.

HARLEQUIN DUCK: The two birds that wintered at Oregon Inlet, N.C., were last reported on 13 March (Mark Crotteau).

WHITE-WINGED SCOTER: John Fussell observed a rather late bird on 18 April in Pamlico Sound near Cedar Island, N.C.

HOODED MERGANSER: Herb Hendrickson noted a male on the late date of 10 May on Lake Townsend near Greensboro.

COMMON MERGANSER: Two males seen in flight at James Island, S.C., was a good find on 4 April (Dennis Forsythe).

RED-BREASTED MERGANSER: Females of this species typically linger well into May in many parts of the Carolinas. However, one on 23 May was rather late at Greensboro, as noted by Herb Hendrickson.

BLACK VULTURE: Of note in Transylvania County, N.C., were two seen on 17 June near Brevard, and two seen three miles from that location on 22 June (Betty McIlwain).

OSPREY: Somewhat early in arriving was one seen on 5 February at Hatteras, N.C., by Marcia Lyons. One was present during most of June at Lake Adger in Polk County, N.C., but no evidence of nesting was seen (Simon Thompson).

AMERICAN SWALLOW-TAILED KITE: As usual, there were a handful of birds overshooting their breeding range this spring, with the following records for the North Carolina coast: two in the last week of March at Buxton (fide Marcia Lyons), two in this same area on 26 April (John Fussell), one near Atlantic on 29 April (Tom Howard, Mike Dunn), one at Oregon Inlet on 6 May (John Wright), and one at Kitty Hawk on 8 and 15 May (Quentin Bell).

MISSISSIPPI KITE: John Fussell noted immature birds near Queens Creek in Onslow County, N.C., on 12 May and at Morehead City, N.C., on 23 May.

BALD EAGLE: Locally rare were two soaring together over Buxton, N.C., on 3 June, as seen by Marcia Lyons.

NORTHERN HARRIER: John Fussell reported two adult males at the North River in Carteret County, N.C., on 6 May, one of which was carrying food. One was present there on 8 May.

BROAD-WINGED HAWK: Quite early in arriving was an adult carefully observed by Peter Worthington in Cleveland County, N.C., on 24 March. Rare in the central coastal plain was one, likely a migrant, near Grimesland, N.C., on 13 April (John Wright).

GOLDEN EAGLE: A good find was one seen by Bruce Krucke and party at Middleton Place near Charleston, S.C., on 25 March.

MERLIN: Rather late was one noted on 16 May at the spoil area in South Carolina near Savannah, Georgia (Steve Calver). One was somewhat in-land on mainland Dare County, N.C., on 18 March (Harry LeGrand, Ricky Davis).

PEREGRINE FALCON: Two birds (not necessarily a mated pair) were seen on a number of occasions in the spring at Chimney Rock Park, N.C., as noted by Fred Weisbecker et al. Another was very rare at Charlotte, N.C., on 10 April (Nancy Cook), and one was seen on 6 May at Oregon Inlet by John Wright.

YELLOW RAIL: Herb Wilson provided good details for one that he flushed from a salt marsh at South Island, S.C., on 23 March.

BLACK RAIL: Seldom reported inland, one was heard repeatedly, responding to a taped call, at Lake Adger, Polk County, N.C., from 28 to 30 April. Taylor Piephoff, Heathy Walker, and Harriett Whitsett made the initial report.

KING RAIL: Inland records, always of interest, were of one seen and heard at Becker's Sand and Gravel Company near Fayetteville on 30 May (Philip Crutchfield), and two heard calling along the Little Lynches River in northern Kershaw County, S.C., on 16 April and again later in the month (Robin Carter, Caroline Eastman).

VIRGINIA RAIL: One was found dead in northwestern Forsyth County, N.C., on 4 April by Mac McCoy and Ramona Snavely. It was an apparent tower kill victim.

PURPLE GALLINULE: This species apparently no longer nests in North Carolina, though one seen on 2 May by Jeremy Nance near Southport was likely a transient. Apparently rare at the Savannah River Plant, S.C., was one on Par Pond on 20 April (John Dunning).

SANDHILL CRANE: An excellent count for the Carolinas was 13 birds seen in flight by Irvin Pitts over Huntington Beach SP, S.C., on 25 April.

BLACK-BELLIED PLOVER: Pam Thompson saw 10 birds, a very high spring total for an inland site, at Lake Adger, Polk County, N.C., on 15 May.

UPLAND SANDPIPER: Seven birds were noted by Robin Carter and Caroline Eastman on 16 April in northern Kershaw County, S.C. Others were single birds seen near Harrisburg, N.C., on 25 April (Harriett Whitsett) and at a spoil area near Savannah in South Carolina on 6 May (Steve Calver).

LONG-BILLED CURLEW: At a regular locale were two birds seen by Ricky Davis at Fort Fisher, N.C., on 25 March, and another was very rare at the western end of Long Beach, N.C., in mid-July, as noted by Bill Brokaw.

RED KNOT: Extremely rare inland in spring were one on 18 May and two on 25 May at an impoundment near Aurora, N.C. (Sam Cooper).

WESTERN SANDPIPER: The only inland report for the spring was one studied by Anne Waters at Silver Bluff Sanctuary, Aiken County, S.C., on 23 April.

CURLEW SANDPIPER: Though there are numerous records for North Carolina from summer and fall, spring records are very few. Bob Lewis observed one, in 2/3rds breeding plumage, at Pea Island on 20 May.

STILT SANDPIPER: A record count for South Carolina was a remarkable tally of 213 at the Savannah spoil area on 16 May, as noted by Steve Calver. Lex Glover counted 60 birds at that site on 20 May. Notable away from the coast was a peak count near Aurora, N.C., of 41 birds on 18 May (Sam Cooper).

RUFF: One of the few South Carolina records, and almost never previously reported in breeding plumage in the Carolinas, was a male in this plumage seen at Hobcaw Barony near Georgetown. Bill Pulliam, Peggy Anderson, and party found the bird on 13 May, and it remained for about a week, being seen by Lex Glover, Chris Marsh, and others.

LONG-BILLED DOWITCHER: John Fussell noted two late individuals on 6 May at North River in Carteret County, N.C.

AMERICAN WOODCOCK: One of unknown breeding status was flushed from a wet thicket just north of Manns Harbor, N.C., on 27 May by Harry LeGrand.

WILSON'S PHALAROPE: Always of interest in the spring, two were rare and early at impoundments near Aurora on 26 March, when seen with Stilt Sandpipers by Sam Cooper. Single birds were notable, each on 13 May, at Bird Shoal near Beaufort, N.C. (John Fussell, Bob Holmes, John Chapple) and at Eagle Island near Wilmington, N.C. (Jeremy Nance, Greg Massey).

RED-NECKED PHALAROPE: The only onshore records, both on 15 May, were of one at the Savannah spoil pond (Steve Calver) and two at Eagle Island near Wilmington (Jeremy Nance).

RED PHALAROPE: This phalarope is very rarely seen from shore; thus, noteworthy was one seen at a pond at Cape Hatteras point on 12 March by Henry and Elizabeth Link.

PARASITIC JAEGER: Though regularly seen from shore in North Carolina during the latter half of May, one light-phase adult seen at Avon on 1 April by Ricky Davis was of interest.

LAUGHING GULL: Inland birds were observed on 23 April at Falls Lake, N.C., by Dan Kaplan and Doug Shadwick, and on 15 May at Lake Townsend near Greensboro by Herb Hendrickson.

LITTLE GULL: A few were seen along the North Carolina coast, as usual, in early spring. Two winter-plumaged adults were seen at Fort Macon SP on 12 March by John Fussell and Deb Squires, and one in this plumage was seen on 1 April at Bodie Island by Ricky Davis.

COMMON BLACK-HEADED GULL: Winter-plumaged adults were noted by Sam Cooper at an impoundment near Aurora on 2 March and by Kitty Kosh at Greenfield Lake in Wilmington from 11 to 14 March. Ricky Davis and Harry LeGrand saw an immature bird on Currituck Banks, N.C., on 19 March.

GLAUCOUS GULL: Apparently the second far inland record for North Carolina was a first-year bird seen at Jordan Lake on 7 May and for several days thereafter. It was seen by Steve Kahler, Sterling Brackett, Ken Knapp, Harry LeGrand, and others. Even later was a bird considered to be in second-year plumage seen by Janet Bryan on 21 May at Belhaven, N.C.

GREAT BLACK-BACKED GULL: Somewhat inland from the tidewater zone were two birds noted at Greenville, N.C., on 11 March by John Wright.

BLACK-LEGGED KITTIWAKE: Marcia Lyons found a dead adult on the beach at the Cape Hatteras lighthouse, N.C., on 20 January.

CASPIAN TERN: The most notable of the handful of inland spring reports was a late bird at Greenville, S.C., on 27 May (Greg Cornwell).

ROSEATE TERN: Two adults, almost certainly not breeding, were seen resting near the tern colony at Cape Hatteras point on 23 June by Marcia Lyons.

COMMON TERN: This species and other terns are seldom seen inland in numbers exceeding one or two dozen birds, except after hurricanes. Quite unusual was a flock of approximately 125 Commons seen by Harry LeGrand at Jordan Lake on 9 May.

ARCTIC TERN: Hypothetical in South Carolina, one was seen off Charleston on 26 May by Bob Barber; however, no description of the bird was received.

FORSTER'S TERN: The best inland total for the spring was six birds seen by Tom Howard near Vass, N.C., on 7 May.

BLACK TERN: An adult was reported on the extremely early date of 3 April at Fort Macon SP by Anne Waters. A more "normal" early date was one seen at Cape Hatteras point on 24 April by John Fussell.

RAZORBILL: The only report of an alcid in the Carolinas during the winter or spring was one Razorbill found dead at Cape Lookout, N.C., on 17 March by Jay McConnaughey.

WHITE-WINGED DOVE: A most unusual report that seems to defy explanation was a flock of six birds seen on 6 June by Oscar LaBorde about 12 miles north of Columbia, S.C. He noted that the "large flashes of white on wings and outer corners of tail were clearly seen" as the birds flew to a pond edge and then landed in trees. This appears to be a first inland report for that state and the fifth state record.

BLACK-BILLED CUCKOO: Unusual for length of stay for a migrant was one present in western York County, S.C., from at least 22 April to 18 May (Taylor Piephoff et al.). Other records, presumably of migrants, were one at Hendersonville, N.C., on 29 April (Lex Glover, Dennis Forsythe), two (one calling) near Fayetteville on 6 May (Philip Crutchfield, Doris Chambers), one at Jordan Lake on 7 May (Anson Cooke), and one at Tryon, N.C., on 15 May (Simon Thompson).

BARN OWL: Seldom reported from the Wilmington area was one seen at dawn at Eagle Island on 2 May by Jeremy Nance.

NORTHERN SAW-WHET OWL: The owl that wintered at Buxton, N.C., was last reported on 6 April, at the residence of Frank and Bonnie Terrerri. Nora Murdock heard one calling, presumably on territory, on the southwest side of Carvers Gap on Roan Mountain, N.C., on 15 March.

WHIP-POOR-WILL: There are few nest records for South Carolina. Thus, notable was a nest found by Paul Koehler at Silver Bluff Sanctuary in Aiken County in May. Anne Waters saw an adult on the nest with two young on 20 May.

OLIVE-SIDED FLYCATCHER: A rare migrant was seen perched in the top of a dead tree near Charlotte on 11 May by Heathy Walker and Harriett Whitsett.

YELLOW-BELLIED FLYCATCHER: Rare and rather early was one observed by Heathy Walker and Harriett Whitsett in Walker's yard at Charlotte on 30 April.

WILLOW FLYCATCHER: Herb Hendrickson saw and heard one giving the "fitz-bew" song near Greensboro on 19 May. [As the species has nested at Winston-Salem and formerly at Raleigh, the bird might not necessarily have been a transient at Greensboro.—HEL]

LEAST FLYCATCHER: One silent bird was carefully studied by Robin Carter, Steve Dennis, and Tim Kalbach at Columbia, S.C., on 6 May.

EASTERN PHOEBE: Lex Glover noted a pair nesting at Westville in northern Kershaw County, S.C., on 3 May. This site is near the Fall Line, somewhat near the edge of the species' breeding range.

SCISSOR-TAILED FLYCATCHER: Always a good find was one seen and photographed [photo seen by me—HEL] on 29 May at Awendaw, Charleston, S.C., by Steve Compton.

HORNED LARK: Along the eastern edge of the breeding range was one seen through the last half of May east of Greenville, N.C., by John Wright.

TREE SWALLOW: Adding to the rapidly growing number of nest records for North Carolina, at least four pairs nested in bluebird boxes in May at James Coman's farm at Piney Creek in Alleghany County.

COMMON RAVEN: James Coman noted birds almost daily at the 2800-foot elevation near Piney Creek, N.C., this spring, with a peak count of seven birds. A pair was seen by Simon Thompson at Tryon, N.C., on 6 April. Nesting at these locations has apparently not been previously reported.

VEERY: A late migrant was heard singing near Hamilton, N.C., on 27 May by Merrill Lynch.

WARBLING VIREO: For the fourth straight spring/summer, one appeared at a site east of Scotland Neck, N.C., where seen on 30 April by Merrill Lynch and Paul Lehman. Presumably a migrant was one seen and heard singing at Greensboro on 13 May by Henry Link, Herb Hendrickson, and others.

PHILADELPHIA VIREO: This species essentially migrates northward to the west of the Carolinas in spring. Thus, quite unusual was one seen and heard singing near Orton Pond in Brunswick County, N.C., on 22 April by Kitty Kosh. The song was like a Red-eyed Vireo, but the bird had "yellow on the throat and breast with black through the eye and a white eyebrow" (according to her description). One seen in the mountains at Asheville, N.C., on 20 May by Gail Whitehurst was not as out of range as the Brunswick County bird, but was very rare nonetheless.

TENNESSEE WARBLER: Very rare in spring in the eastern piedmont were four seen, two of which were singing, near US 1 and the Deep River, N.C., on 7 May by Andy Upshaw, and another seen on 30 April near Jordan Lake by Maurice Graves and Doug Shadwick.

ORANGE-CROWNED WARBLER: This is not an overly rare spring migrant, but it is easily overlooked visually and audibly. The only inland report was one seen by Simon Thompson on 15 April in northern Polk County, N.C.

NASHVILLE WARBLER: Hopefully correctly identified were birds heard singing, but not seen, by observers familiar with the song: one at the Enoree Waterfowl Management Area in Newberry County, S.C., on 1 May (Robin Carter and party), and one near Fairview, N.C., on 21 May (Ruth and Jerry Young). Another was seen at Charlotte on 30 April by Heathy Walker. [This is a very rare spring migrant in the Carolinas; for example, I have just one such record —at Clemson, S.C.—in nearly 25 years of birding.—HEL]

CHESTNUT-SIDED WARBLER: Likely on territory in South Carolina was one singing in late May at Caesar's Head SP (Irvin Pitts). Migrants in eastern North Carolina, where quite rare, were noted on 11 May near Aurora (Sam Cooper) and at Nags Head on 20 May (Ric Carter).

BLACKBURNIAN WARBLER: Very rare along the coast in spring was a male seen and heard singing at Bull's Island near Charleston on 7 May by Steve Compton.

BAY-BREASTED WARBLER: A good count for the sandhills region was three birds at Weymouth Woods Sandhills Nature Preserve, N.C., on 13 May (Libba Watson).

CERULEAN WARBLER: John Wright noted two singing on territory north of Mount Pisgah, along the Blue Ridge Parkway in Buncombe County, N.C., on 28 April. Also on that date, and likely on territory, were four at Warrior Mountain in Polk County, N.C. (Simon Thompson), and six were singing on territory on White Oak Mountain and Tryon Peak in this latter county on 29 April (Harry LeGrand, Ricky Davis). Almost certainly migrants were one singing male seen at Savannah NWR, S.C., on 29 April by Paul Lehman, and two singing males seen near Aurora on 26 April by Sam Cooper.

AMERICAN REDSTART: Totally out of season was a male seen by Simon Thompson on 15 March at Tryon.

BLACK-AND-WHITE WARBLER: A good breeding season count for the coastal plain was six singing birds noted by Merrill Lynch on a Breeding Bird Survey route in western Gates County, N.C., on 29 May.

WORM-EATING WARBLER: One singing on territory along NC 211 northwest of Southport, N.C., on 27 May (Ricky Davis) was noteworthy for being so close to the coast.

SWAINSON'S WARBLER: A rare piedmont record, possibly of a breeding bird, was one heard singing by Jay Carter along the Deep River in northeastern Moore County, N.C., on 28 May.

OVENBIRD: Oscar LaBorde reported an adult bird with young out of the nest about 12 miles north of Columbia, S.C., on 15 May.

LOUISIANA WATERTHRUSH: Presumably on the breeding ground was one heard singing along the New River about 4 miles south of Richlands, N.C., on 14 May (Harry LeGrand).

CONNECTICUT WARBLER: This rare migrant was noted on 16 May at Sherwood Forest in Transylvania County, N.C., where Norma and Bill Siebenheller reported that one hit a window and later recovered.

MOURNING WARBLER: A very rare spring report was of a singing male seen by Ruth and Jerry Young at Fairview, N.C., on 14 May.

WILSON'S WARBLER: Taylor Piephoff noted two singing males on 29 and 30 April at Warrior Mountain near Tryon. Single birds were seen at Charlotte on 14 and 15 May (Heathy Walker) and at Columbus, N.C., on 15 May (Simon Thompson).

SCARLET TANAGER: Along the southeastern edge of the breeding range was a pair east of Greenville, N.C., where Russ Tyndall saw young birds with an adult in early June.

DICKCISSEL: Peter Worthington reported birds on territory near Townville, S.C., a "semi-regular" nesting locale. He noted as many as five singing males and at least one female from 15 to 27 May. At the same site as in 1988, a singing male was noted by Tim Kalbach on 12 and 13 May in Saluda County, S.C.

LARK SPARROW: The individual that was seen in winter at Fort Fisher, N.C., was located there on 25 March by Ricky Davis, and Clyde Smith saw another on 14 April at Bull's Island, S.C.

SAVANNAH SPARROW: One was late on 19 May at the Savannah spoil area, S.C., as noted by Steve Calver.

GRASSHOPPER SPARROW: Pitt County, N.C., apparently lies at the edge of the species' nesting range. John Wright found birds on territory at four sites in both the eastern and western parts of the county this spring.

SHARP-TAILED SPARROW: A notably late migrant in spring, two birds were singing near Corncake Inlet, N.C., on 26 May (John Fussell). [Although the species is a locally common breeder south to the Chincoteague, Virginia, area, there is no evidence of breeding in North Carolina, and these birds above are presumed to be migrants.—HEL]

LINCOLN'S SPARROW: The only spring reports were individuals seen at Columbia, S.C., on 12 April by Tim Kalbach, and on 11 March by Eric Dean near Goldsboro, where this bird overwintered.

WHITE-CROWNED SPARROW: Notable near the coast in spring were birds at a Morehead City feeder that wintered and was last seen on 5 April (John Fussell), and at Oriental, N.C., on the late date of 13 May (Dorothy Foy). Nearly as late was one seen on 11 May in central Halifax County, N.C., by Frank Enders.

LAPLAND LONGSPUR: One of the latest records for the Carolinas was one noted on 27 April by Eric Dean at Cherry Hospital near Goldsboro.

YELLOW-HEADED BLACKBIRD: An adult male was very unusual in the mountains in John Sill's yard at Franklin, N.C., on 16 April. [A photo taken by Cathryn Sill was submitted to me for confirmation.—HEL] During the second week of May, two males were seen at a feeder in Salvo, N.C. (fide Marcia Lyons).

RUSTY BLACKBIRD: This wintering species generally has departed the Carolinas by early to mid-April; thus, notable were eight seen in Hendersonville, N.C., on 29 April by Lex Glover and Dennis Forsythe.

NORTHERN ORIOLE: Far out of range was an apparently "fluke" nesting attempt of orioles at River Park North at Greenville, N.C.. A pair was seen by John Wright during the spring and as late as 15 June. Nesting of the species in the southern mountains of North Carolina is quite rare; thus, notable, though a somewhat vague record, was the report by an unnamed individual of a pair and a nest, plus three young, in Brevard "about 5 years ago" (fide Norma and Bill Siebenheller).

CBC Rare Bird Alert
(704) 332-BIRD

BOOK REVIEWS

RARE BIRDS OF THE WORLD: A COLLINS/ICBP HANDBOOK

Guy Mountfort. 1988. The Stephen Greene Press, Lexington Massachusetts; distributed by Viking Penguin Inc. 40 West 23rd Street, New York, NY 10010. illustrated by Norman Arlott. hardback 256 p. $29.95.

This book is based on the "Red Data Book" of the International Council for Bird Preservation and the International Union for Conservation of Nature and Natural Resouces and, as such, is a frightening description of the status of the world's bird populations. According to information included here approximately one thou-sand of the roughly nine thousand species of birds in the world may be regarded as "threatened". The term threatened covers several categories that are not biologically healthy such as:

Endangered - The species is known to be in danger of extinction, and is unlikely to survive if the causal factors continue operating.

Vulnerable - The species is less threatened than those in the endangered category, but is likely to move to the endangered category.

Indeterminate - The species is thought to be either endangered, vulnerable or at best rare, but there is not enough evidence to place it definitely in one of these categories.

Insufficiently Known - The species is suspected to be, but because of lack of information not definitely known to be, at risk.

Rare - The species has a small but stable population which may be at risk (often as a function of a restricted range), and therefore requires careful monitoring.

Of Special Concern - The species is at present safe but generates a great conservation interest.

Candidate Red Data Book - The species is being considered for the next editions of the Red Data Books. No particular status has been assigned to it because research has not yet been completed, but it could be any of the above.

Regardless of how much quibbling there is over whether or not this population really is a separate species or whether populations with restricted ranges are really biologically at risk, the proportion of the world's bird populations perceived as being in some danger is significant. The word "decimation" is completely appropriate.

Mountfort's narrative deals with the species in each zoogeographic region separately and describes them in some detail. In most cases an attempt is made to describe the known history of the species and what is being done to offset its current precarious state.

The 32 color plates and 50 line drawings are useful in illustrating how many of these exotic birds appear and add a bit of color to the generally depressing flow of the text.—H. T. Hendrickson

THE COLLINS FIELD GUIDE TO THE BIRDS OF GALAPAGOS

Michael Harris. 1974. Republished 1989 by The Stephen Greene Press, Lexington, Massachusetts; distributed by Viking Penguin, Inc. 40 West 23rd Street, New York, NY 10010. illustrated by Barry Kent MacKay. hardbound. 160 p. $19.95.

Yet another re-released Collins Guide to birds in an exotic part of the world has been made available to the American bird-watching public. The large number of nature tours visiting these famous desolate islands that inspired Darwin will probably make it possible for The Stephen Greene Press to sell enough copies of this book to cover the associated costs of producing it.

As is typical of all of the Collins guides, the text is competent and the illustrations are adequate for identification purposes. The quality of the printing and binding are excellent and the cover is strong and durable (an important feature when traveling to an area such as this). If you are planning to see the Galapagos and wish to identify its remarkable bird-life, this is a guide that you ought to take along.—H. T. Hendrickson

POTENTIAL EFFECTS OF OIL SPILLS ON SEABIRDS AND SELECTED OTHER OCEANIC VERTEBRATES OFF THE NORTH CAROLINA COAST

David S. Lee and Mary C. Socci. 1989. Occasional Papers of the North Carolina Biological Survey 1989-1, Raleigh, N.C. Illus. 64p. soft cover. $8.00

David Lee's marine studies of vertebrate animals since 1975, probably make him better able to describe the nature and abundance of these organisms in the area off Cape Hatteras than anyone else. Because of this knowledge, he has been asked to respond to the proposal to explore for gas (or oil) in this same area and describe the effects on wildlife should a spill occur.

Four species listed by the U.S. Fish and Wildlife Service as Endangered or Threatened are known to occur in the oil lease areas and it is presumed they could be severely affected by oil spills. These are the Black-capped Petrel, Bermuda Petrel, Peregrine Falcon, and Roseate Tern. Three of these species are also listed in the Mountfort book reviewed above. In addition, six other species that are not considered Endangered or Threatened are considered highly vulnerable to oil pollution in that they are known to occur in highly concentrated numbers at least in some seasons in the area of oil leases. These are the Greater Shearwater, Sooty Shearwater, Audubon's Shearwater, Band-rumped Storm-Petrel, Masked Booby and Bridled Tern. It is also probable that there would be significant mortality of Common Loon, White-tailed Tropic Bird, Red-billed Tropicbird and/or Northern Gannet if a spill were to occur, depending upon the season of the year.

In addition to the assessments of danger of oil spills, there is much useful information on the basic biology of these species and some drawings that will help in the identification of some seabirds. Information on whales and turtles is also included which will be of interest to anyone making pelagic trips out of Oregon Inlet.

The maps showing the locations where the various species have been found are most useful, particularly when used with the acetate overlay that shows the location of the oil lease sites. Lo and behold, the birds and the petroleum companies both want the same areas.

I found several typographical errors, such as a consistent inability to spell Procellariiformes, but these did little to detract from the overall merit and utility of this contribution.—H. T. Hendrickson

The Fish and Wildlife Reference Service; Answers to your conservation questions

The U.S. Fish and Wildlife Service provides Federal grant funds to State fish and wildlife agencies. The State agencies conduct research and report back to the Fish and Wildlife Service. These results are in the form of reports. Approximately 1,000 of these reports are added to the Fish and Wildlife Reference Service each year.

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Users can obtain answers from FWRS in several ways. The Service provides a toll-free number for requestors to order database searches and reports. FWRS also accepts requests via the mail and in person. The FWRS is specially organized to accommodate visitors and to provide a full range of on-site services at its reading room. All users have access to the report collection and to the staff for assistance in defining information needs, identifying materials, and answering question.

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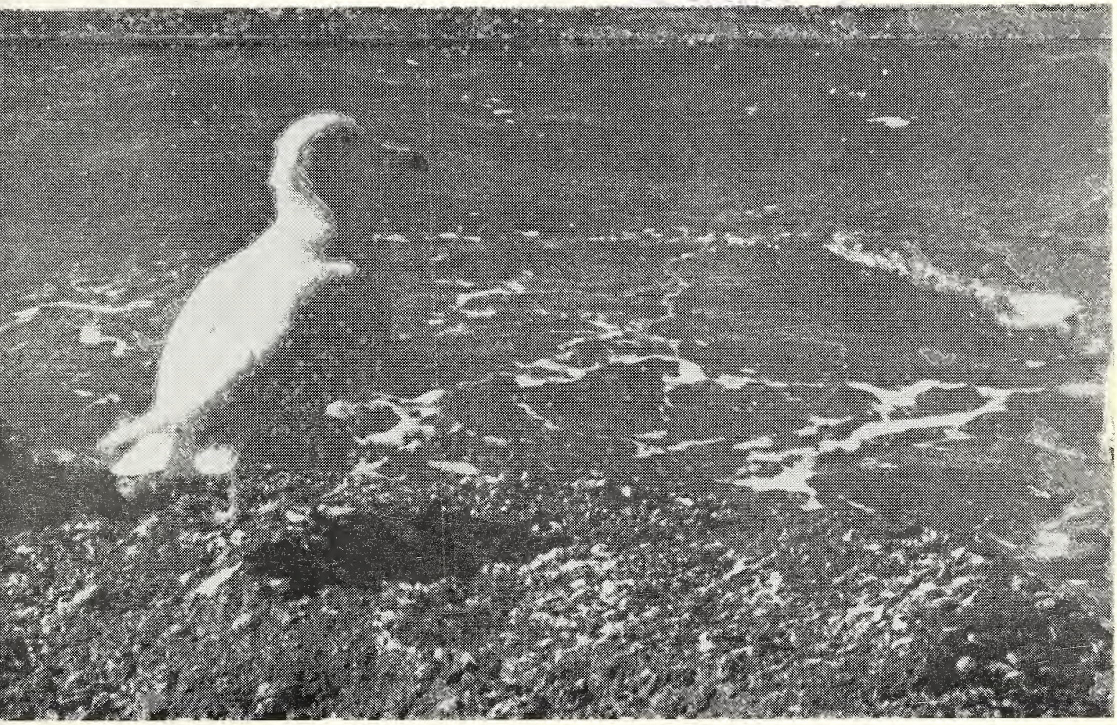

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OUR COVER—Pete Laurie's photograph of this Glaucous Gull at Murrells Inlet appears to be the first ever for South Carolina. See article by Laurie & Jenkins on page 64.

REPORT OF THE NORTH CAROLINA BIRD RECORDS COMMITTEE

1990

The following report is based on a meeting of the Carolina Bird Club's North Carolina Bird Records Committee held on 2 February 1990. The Committee reviewed the category statuses (Official State List, Provisional List, Unaccepted Origin List, and Unaccepted Sighting List) of a number of species, as well as individual records. The voting for the statuses followed the rules listed in the Proposed Bylaws printed in the Winter 1988 CBC Newsletter. In some cases, where no decisions have yet been reached, the committee considers the record or species as Unresolved and will discuss the record or species at a later meeting.

PACIFIC LOON (*Gavia pacifica*). Official. One in partial breeding plumage was seen and photographed at Cape Hatteras on 15 May 1987 by Michael Tove, John Fussell, Mark Oberle, and others (Chat 53:8). The Committee considers the photographs suitable to document this species. There is one other report of the "Arctic Loon" complex — on 17 February 1974 on Pamlico Sound at Ocracoke (Am. Birds 28:626). This report was made before the split of the original species into the Pacific Loon and the Arctic Loon. The former is the species that is widespread in northern North America, whereas the latter is essentially restricted to the Old World. No details were published of the Ocracoke record, and the Committee has not reviewed this record.

WESTERN GREBE (*Aechmophorus occidentalis*). Unresolved. The species was listed as "Official" by the previous Records Committee. The present Committee will review all records of the species complex. As with the previous species, the American Ornithologists' Union has split the former "Western Grebe" into Clark's Grebe and Western Grebe. All North Carolina records likely refer to the latter species. However, there are no known specimens or photographs of the complex for the state.

BLACK-BROWED ALBATROSS (*Diomedea melanophris*). Provisional. This species is elevated from the previous Provisional II category, as the Committee believes that the detailed sight record of two birds off Morehead City on 19 August 1972, seen by Paul DuMont and seven others, is valid (Am. Birds 27:739-740).

YELLOW-NOSED ALBATROSS (*Diomedea chlororhynchos*). Unaccepted Sighting. This is little change from the previous status of Provisional II. The Committee feels that the sight records from offshore waters on 17 April 1978 and two days later, plus albatrosses in October 1976 and 1978 (Chat 43:59; Am. Birds 33:720) are not detailed enough to clearly indicate that the species involved were Yellow-nosed.

BERMUDA PETREL (*Pterodroma cahow*). Unaccepted Sighting. The published record, of a bird seen off Oregon Inlet on 18 April 1983 (Am. Birds 38:159), is a detailed report that has considerable merit. However, because of the great variation in the plumages of the very similar Black-capped Petrel (*P. hasitata*), sight records at sea of the extremely rare Bermuda Petrel are always open to question.

SOFT-PLUMAGED PETREL (*Pterodroma mollis*). Unresolved. The Committee feels that the sighting of a bird off Oregon Inlet on 3 June 1981 (Am. Birds 38:158) is a valid record. The problem here is that the "species" may actually consist of three separate species [(*P. mollis, P. madiera, and P. feae*)], as suggested both by D.S. Lee (Am. Birds 38:159) and the American Ornithologists' Union (Auk 102:684). It is thus not clear to which of the three populations, or species, the sighting refers.

CAPE PETREL (*Daption capense*). Unaccepted Sighting. The published report (Chat 50:118-119) provides no description of the bird reported off Oregon Inlet on 26 July 1985, and the report was not written by one of the observers. This species has been reported on a number of occasions in North American waters off both coasts, but no record is substantiated by specimen or photograph; and the American Ornithologists' Union has removed the species from its list of North American species. The report does not rule out that a shearwater with an unusual plumage, such as a partial albino, might have been involved.

LITTLE SHEARWATER (*Puffinus assimilis*). Unresolved. The Committee believes that a sighting of one off Oregon Inlet on 28 December 1984 (Am. Birds 42:213-220) may have some merit. However, other reports of the species mentioned in the above reference are not convincing to the Committee. The Committee plans additional study on these records.

BROWN BOOBY (*Sula leucogaster*). Provisional. Lee and Haney review records of this species in the Carolinas (Chat 48:29-45). Both the previous and the current Committees accept the sight record of an immature at Ocracoke on 25 April 1983. Several other state reports are deemed unacceptable by the current Committee.

WHITE-FACED IBIS (*Plegadis chihi*). Unaccepted Sighting. A report of this species, a breeding-plumaged adult at Pea Island in mid-May 1973 (Am. Birds 31:979), contains no further details. If additional details are received by the Committee, the report will be re-evaluated.

GREATER FLAMINGO (*Phoenicopterus ruber*). Unaccepted Sighting. Lee reviewed the status of flamingos in the Carolinas (Chat 51:43-50), noting that the only documentation (i.e., photographs) refer to the Chilean Flamingo (*P. chilensis*). There are a number of reports of "flamingos" for North Carolina, and some may refer to Greater Flamingo. The Committee certainly agrees that flamingos have occurred in the state, but the origin of them is in question, and there is apparently no detailed description of a Greater [American] Flamingo for the state. Observers are encouraged to submit full details, for publication in *The Chat*, on flamingos seen in the Carolinas.

CHILEAN FLAMINGO (*Phoenicopterus chilensis*). Unaccepted Origin. Lee (Chat 43-50) documents this species in North Carolina through published photographs. Because this is a South American species, records of such birds in the Carolinas might be of escaped individuals.

BLACK-BELLIED WHISTLING-DUCK (*Dendrocygna autumnalis*). Unaccepted Origin. There is a specimen record for Core Sound (not Cove Sound as indicated in Chat 45:41-42) on 15 February 1968. This species is partially migratory, and the record might refer to a wild individual; however, the Committee wishes to be conservative and considers the bird a possible escape. This is no change in status (Provisional II) from that of the previous Committee.

MUTE SWAN (*Cygnus olor*). Official. This is no change from the previous status; however, the Committee decided to review all North Carolina records. Several recent records are of birds that appeared at sites in the fall, apparently with other waterfowl, where the species was not previously known to be present. Thus, these birds may well have come from established populations to the north of the state. Photographs are available at the N.C. State Museum of Natural Sciences.

BARNACLE GOOSE (*Branta leucopsis*). Unaccepted Origin. There are several reports of the species in the state, with excellent details. The Committee acknowledges that the species has been reliably seen in the state, but the birds might have been escaped individuals. Ryff (Birding XVI:146-154) argues that nearly all United States records of the species probably refer to escaped birds; however, Szantyr (Birding XX:232-234) shows that all North American records fall between September and May, with peaks in November and March. These dates are consistent with birds being of natural origin as opposed to being escaped birds. The Committee will likely discuss the species again at future meetings.

RUDDY SHELDUCK (*Tadorna ferruginea*). Unaccepted Origin. The one state record (Birds of North Carolina) is believed to refer to an escaped individual.

COMMON SHELDUCK (*Tadorna tadorna*). Unaccepted Origin. Records for the state (Am. Birds 26:845) are believed to refer to escaped individuals.

MANDARIN DUCK (*Aix galericulata*). Unaccepted Origin. The published records of this species (Chat 38:70, Chat 54:22) certainly refer to escaped individuals, as this is an Asian species.

BAIKAL TEAL (*Anas formosa*). Unaccepted Origin. The one record (Chat 26:30) of this Asian species almost certainly refers to an escaped bird.

GARGANEY (*Anas querquedula*). Unresolved. The Committee has not yet reviewed the single state record (Chat 21:68 and 21:80). This Eurasian species might be a vagrant to the Atlantic coast, and it should not be assumed that such North

American records are of escaped birds. The Committee will review this species at its next meeting.

FALCATED TEAL (*Anas falcata*). Unaccepted Origin. The one record (Chat 42:58) is believed to refer to an escaped individual, as this is an Asian species.

BARROW'S GOLDENEYE (*Bucephala islandica*). Unaccepted Sighting. The several "records" of the species for North Carolina are reviewed by Simpson (Chat 35:45-49). The Committee feels that there is no overwhelming evidence that the species has been reliably seen in the state and questions the validity of all records.

MASKED DUCK (*Oxyura dominica*). Official. This is an upgrading of the previous status (Provisional II), as the present Committee believes that the record of one at Lake Ellis from 20 to 25 February 1982 (Chat 46:112-113) refers to a wild individual. This species is seldom kept in captivity, and the species occurs regularly in Florida.

BLACK-SHOULDERED KITE (*Elanus caeruleus*). Official, pending publication of a description of a bird seen at Fort Fisher on 8 April 1989 by Eric Dean, Clyde Sorenson, and others. A photograph taken by Sorenson and reviewed by the Committee confirms the record. The species was previously considered Provisional I based on a sight record (Chat 21:70). The Committee has not yet reviewed this latter record.

SWAINSON'S HAWK (*Buteo swainsoni*). Provisional. No change from the previous status (Provisional I). The Committee considers two sightings as valid — at Pea Island on 11 October 1965 (Chat 44:76-78) and near Garner on 21 March 1982 (Chat 46:80-81). Two other sightings have been published (Chat 44:76 and Chat 44:76-78) that the Committee considers Unaccepted Sightings, believing that the birds were misidentified.

PRAIRIE FALCON (*Falco mexicanus*). Unaccepted Origin. This is a downgrading of the previous status (Provisional I). The Committee believes that the sighting of one near Sealevel in Carteret County on 23 May 1968 (Chat 33:26) might relate to an escaped individual. This species is kept in captivity by falconers, and the late spring date also seems unlikely for a wild individual.

LIMPKIN (*Aramus guarauna*). Provisional. No change from the previous status (Provisional I). There are two accepted sight records — Waccamaw River on 7 September 1975 (Chat 40:94-95) and Smith Mill Pond on 20 May 1983 (Chat 51:100).

SPOTTED REDSHANK (*Tringa erythropus*). Official. There are published description and photos of one bird in partial breeding plumage seen by many observers at Cape Hatteras from 13 to 17 May 1987 (Chat 53:38-41; Am. Birds 41:379).

ESKIMO CURLEW (*Numenius borealis*). Unaccepted Sighting. There is a report of a "possible" Eskimo Curlew (Chat 39:35). The Second Supplement to the 1978 Checklist of North Carolina Birds (Chat 48:85-88) refers to perhaps another record in *North Carolina Historical Review*, 1984 issue. The Committee has reviewed only the report in *The Chat*.

SLENDER-BILLED CURLEW (*Numenius tenuirostris*). Unaccepted Sighting. The previous Committee never reviewed the status of this species, and the present Committee also believes that mention of this species in *Am. Birds* 31:164 is most unfortunate, as the bird in question was reported by the observer as a Whimbrel of the Eurasian race (white rump) (fide John Fussell).

LITTLE STINT (*Calidris minuta*). Official, pending publication of details and deposition of photos. An individual in worn breeding plumage was seen at Cape Hatteras from 22 to 25 July 1989 by Derb Carter, Merrill Lynch, Ricky Davis, Harry LeGrand, and several other birders. Photos have been reviewed by the Committee and considered to document the sighting.

MEW GULL (*Larus canus*). Provisional. No change from the previous status (Provisional I). There are two reports accepted by the Committee — at Cape Hatteras on 31 December 1980 (Chat 45:75-77) and at Hatteras Inlet on 27 December 1983 (Chat 48:94-95). The former apparently refers to the Eurasian race (*L. c. canus*), whereas the second apparently refers to the western North American race (*L. c. brachyrhynchus*).

THAYER'S GULL (*Larus thayeri*). Official. This is an upgrading of the previous status (Provisional I). There are several published records, including a published photograph (see Chat 53:53-65). Unpublished photographs have also been reviewed by the Committee. The Committee is not addressing the validity of the species.

ICELAND GULL (*Larus glaucoides*). Official. This is an upgrading of the previous status (Provisional I). There are dozens of records for North Carolina, plus definitive published (see Chat 46:57-71) and unpublished photographs.

IVORY GULL (*Pagophila eburnea*). Unaccepted Sighting. The previous Committee never discussed the sight record of a "probable" Ivory Gull at Fort Macon State Park on 29 January 1980 (Chat 44:105-106), giving it a Provisional II status because the sighting was simply considered as "probable". The present Committee believes that the bird was misidentified, as suggested in *The Chat* 53:53-65.

BAND-TAILED PIGEON (*Columba fasciata*). Provisional. No change from the previous status (Provisional I). One accepted sight record, of an individual along the Blue Ridge Parkway in Haywood County on 10 June 1980 (Chat 44:106-107). The Committee considered, but rejected, the notion that the bird might have been an escaped individual.

RINGED TURTLE-DOVE (*Streptopelia risoria*). Unaccepted Origin. No change from the previous status (Provisional II). There are numerous records for the state, including a specimen. A colony at Winston-Salem has not been considered to be established for a long enough time to be considered for Official status.

BUDGERIGAR (*Melopsittacus undulatus*). Unaccepted Origin. No change from the previous status (Provisional II). Escaped individuals have not established breeding populations in the state.

MONK PARAKEET (*Myiopsitta monachus*). Unaccepted Origin. No change from the previous status (Provisional II). Though breeding pairs or colonies have been reported from the state, the Committee believes that no populations have been established for a decade or longer.

BLACK-HEADED PARAKEET (=NANDAY CONURE) (*Nandayus nenday*). Unaccepted Origin. No change in status (Provisional II). This South American species is almost certainly an escape (Chat 46:43-44).

SMOOTH-BILLED ANI (*Crotophaga ani*). Official. No change from the previous status. The Committee discussed the possibility of the 19th Century specimen being an escaped bird, as did the previous Committee; neither felt that the species is likely to have been kept in captivity.

RUFOUS HUMMINGBIRD (*Selasphorus rufus*). Official. The species was considered of Provisional status in 1984 (Chat 48:85-88), the last records committee decisions to be published. Since that time, a number of records of the species, including a specimen and many photos, have occurred in the state.

GREEN VIOLET-EAR (*Colibri thalassinus*). Official, pending publication of a description of the bird seen at a feeder in Asheville in October 1987 by hundreds of birders from across the country. Color photos are available. The Committee considers that the chance of the bird being an escaped individual is extremely slight, and there are a handful of other United States records for this species that ranges northward to Mexico.

IVORY-BILLED WOODPECKER (*Campephilus principalis*). Official. No change in status, but the Committee wished to review the only record for the state. The specimen taken by Alexander Wilson in the 1800's is apparently no longer available or has been lost; however, the Committee believes there is no reason to question the validity of the record.

SAY'S PHOEBE (*Sayornis saya*). Provisional. No change from the previous status (Provisional I). The previous Committee reviewed photos of a bird seen near Lillington from 7 to 12 December 1985 by Clyde Atkins, Harry LeGrand, and others (Chat 51:75-76); the photos were considered of insufficient clarity for documentation. The present Committee considers that this record and a previous sighting from Raleigh on 23 October 1965 (Chat 30:28) to be acceptable sightings.

ASH-THROATED FLYCATCHER (*Myiarchus cinerascens*). Provisional. No change from the previous status (Provisional I). The Committee has reviewed and accepts the sighting at Raleigh on 16 May 1973 (Chat 39:40-43). However, unpublished details of one reported at Pea Island on 3 June 1974 (Am. Birds 28:891) have not yet been reviewed by the Committee.

TROPICAL KINGBIRD (*Tyrannus melancholicus*). Provisional. One bird was seen and photographed near Fairfield from 29 December 1985 to 3 January 1986 by Ken Knapp, Ricky Davis, Mike Tove, and many other observers. Because the species looks very similar to the Couch's Kingbird, the photos possibly might not conclusively prove the bird was a Tropical. The distinctive call was heard but not tape recorded for documentation. However, as neither Tropical nor Couch's has previously been recorded from the state, the photos document the species complex (Tropical/Couch's) as Official. Details have been reviewed by the Committee and will be published shortly. The Committee will seek outside review of this record.

FORK-TAILED FLYCATCHER (*Tyrannus savana*). Official. The previous Committee voted the species as Official in 1988, but this decision had not previously been published. One seen and photographed by Henry Haberyan and others from 1 to 7 June 1986 at Cedar Point in Carteret County (Chat 52:54) is the only state record.

GRAY JAY (*Perisoreus canadensis*). Unaccepted Sighting. One was reported on a Christmas Bird Count in Rockingham County in 1987, but the count editor (Harry LeGrand) rejected the report. This Committee also rejects the sighting.

BLACK-BILLED MAGPIE (*Pica pica*). Unresolved. The present Committee has not reviewed the report of one seen at a feeder at Chapel Hill on 23 March 1960 (Chat 24:25). The previous Committee considered the record as valid and listed the species as Provisional I.

NORTHERN WHEATEAR (*Oenanthe oenanthe*). Official, pending publication of full details of one seen and photographed at Avon on 2 October 1987 by John Fussell, Ricky Davis, Harry LeGrand, and others. Photos have been reviewed by the Committee. The former status of Provisional I was based on the acceptance of a sight record of a single bird seen at Franklin on 11 October 1981 (Chat 46:82-83).

MOUNTAIN BLUEBIRD (*Sialia currucoides*). Provisional. No change from the previous status (Provisional I). The only record is a sighting of a male near Asheville on 15 June 1985 (Chat 50:54).

BLACK-BACKED WAGTAIL (*Motacilla lugens*). Official, pending publication of full details. This record, of an individual seen at Cedar Island by John Fussell and Bob Holmes on 15 May 1982, was published without details in *The Chat* 46:121 as "White Wagtail" of the Siberian black-backed race (*Motacilla alba lugens*). After this mention in *The Chat*, the American Ornithologists' Union considered the black-backed form as a separate species (Black-backed Wagtail). Color photos have been reviewed by the current Committee and have been determined to document the record as Black-backed.

SPRAGUE'S PIPIT (*Anthus spragueii*). Provisional. This is a down-grading of the previous status of Official. The present Committee reviewed four of the five known published records of the species in the state; all are sight reports (Chat 23:89, Chat 37:25, Chat 41:51, Chat 46:121; Occasional Papers of the North Carolina Biological Survey 1986-11). It feels that, collectively, the records do not conclusively establish, beyond question, that the species deserves a place on the Official list, as most records contain details that cause concern about the identification. Additional review of all five records will be made.

BELL'S VIREO (*Vireo bellii*). Provisional. No change from the previous status (Provisional I). The present Committee believes the sight record of one near Zebulon on 10 August 1974 (Chat 39:92-93) was correctly identified.

BLACK-THROATED GRAY WARBLER (*Dendroica nigrescens*). Provisional. No change from the previous status (Provisional I). The present Committee's decision is based solely on the published sighting by Kitty Kosh and others of one at Wilmington from 5 to 22 January 1986 (Chat 51:77-78). A record of one on the Wilmington Christmas count on 30 December 1965 (Chat 30:18, 24) was not described; this record has not been reviewed by the Committee, though acceptance or rejection would not change the status of the species in the state.

TOWNSEND'S WARBLER (*Dendroica townsendi*). Unresolved. The Committee is split over the validity of the sighting of at least two birds in Swain County on 24 April 1975 (Chat 42:85). The previous Committee considered the sight record valid (Provisional I); however, the current Committee has concerns about the sighting, some members believing that Black-throated Green Warblers, common in that area at that time of year, were misidentified, despite descriptions that are seemingly those of Townsend's. The observer was from out-of-state. The Committee hopes to contact the observer for additional details.

KIRTLAND'S WARBLER (*Dendroica kirtlandii*). Provisional. No change from the previous status (Provisional I). The present committee bases the status on the acceptance of a sight record from Iredell County on 29 August 1982 (Chat 51:107-108). Several sight records from Rocky Mount, all by the same observer (Birds of North Carolina 1942) have not yet been reviewed; these would constitute only one record, if accepted.

GREEN-TAILED TOWHEE (*Pipilo chlorurus*). Unresolved. The report of one seen at Bodie Island on 28 November 1975, a "close and well described sighting" (Am. Birds 30:53), may have merit. Unfortunately, no details were ever published in The Chat or elsewhere. The Committee hopes to receive details for future review. The species was placed in the Provisional II category by the previous Committee, for lack of published details.

WESTERN MEADOWLARK (*Sturnella neglecta*). Provisional. No change from the previous status (Provisional I). There are two accepted records, of singing birds, from the Raleigh area from 21 January to 3 March 1968 (Chat 32:104-105) and from Pea Island on 30 November 1965 (Occasional Papers of the North Carolina Biological Survey 1986-11).

SHINY COWBIRD (*Molothrus bonariensis*). Unresolved. A male was reported, and photographed, near Aurora on 16 November 1989 by Sam Cooper and others. The Committee accepts the written description as valid, which places the species at least on the Provisional list (pending publication), but there is dissention about whether the photos are clear enough to confirm the record. The photos will be submitted for outside review.

PINE GROSBEAK (*Pinicola enucleator*). Official. No change from the previous status. Though there are over one-half dozen reports of the species in the literature, few contain details, and no photograph or specimen is known for the state. The current Committee feels that, collectively, the reports are sufficient to keep the species Official, but photographs are badly needed, as are sightings by multiple, experienced observers.

LESSER GOLDFINCH (*Carduelis psaltria*). Provisional. No change from the previous status (Provisional I). There is a single sight record, from Winston-Salem on 27 September 1985 (Chat 50:59-60).

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General Field Notes

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NOTICE

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Eastern Phoebe Breeds in the Northeast Upper Coastal Plain of South Carolina

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A pair of Eastern Phoebes (*Sayornis phoebe*) nested underneath a bridge on paved road SR-36 at Anderson's Mill Pond, 4.5 km SE of Wallace, Marlboro County, in the Upper Coastal Plain of South Carolina. On 25 June 1988, I flushed one young from the nest when I raised my head to look inside it. One adult tended this young after I flushed it while its mate remained nearby. Earlier, on 11 June, one adult visited the nest once for 20 sec and called briefly while underneath the bridge. I do not know if the female was incubating or brooding at this time. I detected no other evidence of past phoebe occupancy at this bridge.

The phoebe nest was adherent to concrete on a rough surface at the base of a narrow (15 cm) diagonal segment of the underside of the bridge which joins the floor and end wall of the bridge along its entire length. The NW facing nest was placed at the midpoint, 3.5 m from either side of the bridge. The distance from the top of the nest to the floor was 10 cm, and the distance from the bottom of the nest to water was 58 cm (very low, see McNair, 1984).

The bridge was built entirely of concrete, divided into three partitions, and contained no ledges. The bridge is oriented NE-SW, is 7.1 m wide, and spans 9.6 m. The height at the center of the bridge above water to the top of the bridge, as well as the end wall above water, is 1.6 m. No utility wires exist at this site.

Later in 1988, I found an old phoebe nest on a ledge under the eaves of the porch above the main step entrance of an abandoned house beside Anderson's Mill Pond, about 100 m from the above bridge. On 11 March 1989, I found a pair of phoebes on territory at the house. On 13 April, a new nest, with one egg, had been built on top of an electric light socket which was placed over the top of a window jamb. The top of the nest was 50 cm below the porch roof. On 23 April, the nest contained four eggs. On 24 May, the nest was undamaged but contained several mummified young. Some grassy materials had been added to the nest cup of the original nest, evidence suggesting that the pair of phoebes possibly attempted to renest.

On 22 June 1989, I watched a pair of phoebes, presumably the same pair as above, bring damselflies, dragonflies, and other winged insects to nestlings at a nest underneath the same bridge used in 1988. The distance from the bottom of the nest to water was only about 30 cm, because the water was very high from recent rains. Because of the sequence of breeding events in both years, I believe the same pair of phoebes nested in both years at both nest-sites.

In 1989, two pairs of phoebes nested underneath the very large US Highway 1 bridge (outgoing to Wallace, Marlboro County), over the Great Pee Dee River on the Chesterfield County side, South Carolina, at the Fall Line. I found a total of seven nests, all of which were placed on rough broad concrete sections over moist land within the floodplain near wooded swamps, yet not directly over water. The tops of all phoebe nests were about 1.2 m below the highway floor of the bridge and far above the ground (greater than 6 m). Some of the nests were in corners of the sections adjacent to end wall partitions, while others were not. Nests faced either direction (N-S).

Five of the nests were in a group, all unoccupied, about 40 m apart from the other two nests; the two groups were separated by a creek. One adult phoebe was feeding two very recently fledged young near the group of five nests on 11 June. On the same date, one of the two-nest group was occupied and the male was bringing food to the female. The female was probably incubating then because later, on 1 July, an adult was bringing food for nestlings at this nest, while its mate remained nearby. At least three other phoebes were feeding nearby at the wooded swamps and woodland edges.

I found another pair of phoebes breeding at the Fall Line in Chesterfield County in 1989, on paved road SR-166 over Bear Creek about 8 km from Cheraw. On 14 April, the female was incubating eggs on a nest underneath a new small concrete bridge, while her mate and an unmated male were singing nearby. The bridge had a single partition which had a narrow, continuous diagonal edge on top on each side. On one side, one Barn Swallow (*Hirundo rustica*) nest in the middle of the partition had been appropriated by this nesting pair of phoebes. The top of this phoebe nest was close to the floor of the bridge. I detected no evidence that phoebes had used this site for breeding previously.

Finally, in 1989, another pair of phoebes nested underneath the large concrete bridge over Black Creek, US 15 By-Pass, Hartsville, Darlington County, South Carolina, in the Upper Coastal Plain. On 11 May, the male was bringing damselflies, dragonflies, and other winged insects to the nest, while the female was incubating or brooding.

These nest records of Eastern Phoebe at four localities within three counties of the northeast Upper Coastal Plain of South Carolina in 1988 and 1989 are the first documentation of breeding in this physiographic province of the state (Post and Gauthreaux, 1989). L. Glover found several nests of one pair of phoebes in May 1988 slightly further south, on the Fall Line at Lugoff, Kershaw County (Chat 53:48, 1989). One Eastern Phoebe was reported in the Upper Coastal Plain at Santee State Park, Orangeburg County, on 4 June 1977, but no breeding evidence was documented (Chat 42:71, 1978). In the Piedmont, confirmed breeding records closest to the Fall Line are from NW Marlboro and N Chesterfield counties (McNair, unpubl.) and 16 km N of Columbia, Richland County, where one nest was found under the eaves of a house in May 1985 (Chat 49:104, 1985).

This modest breeding range expansion of Eastern Phoebes to the Coastal Plain of South Carolina is not surprising because phoebes have expanded their breeding range throughout this physiographic province in other states in the southeast USA (McNair, 1984, and references cited therein). In 1988, Eastern Phoebes also first nested in Florida, when young fledged from a nest underneath a bridge in N Okaloosa County in early June (Ware and Duncan, 1989; nest coll., FMNH).

In the Sandhills Province of the Upper Coastal Plain of the Carolinas, I only know of phoebe nests located under bridges (pers. obsv.: J. Carter, pers. comm.). With the possible exception of phoebes breeding in the northern Coastal Plain of North Carolina, I am unaware of any phoebe building a nest in the Coastal Plain of the Carolinas under the eaves of a building except for the pair at Anderson's Mill Pond, Marlboro County, South Carolina.

Some nest-site characteristics of phoebes breeding under bridges in the northeast Upper Coastal Plain of South Carolina differ from phoebes breeding under bridges in the nearby Sandhills Province and Piedmont of North Carolina (McNair, 1984). In South Carolina, two of the four bridges were large. Most nests were adherent, not statant, and were usually placed away from the edge of the bridges. The nests at Anderson's Mill Pond were placed very close to the water and the nests of the US 1 bridge were placed high above ground. Barn Swallows also nested under all bridges used by phoebes in South Carolina. These differences may be an artifact of the characteristics of the bridges themselves, because I was unable to locate small bridges with steel I-beam ledges in the northeast Upper Coastal Plain of South Carolina, which were numerous in nearby North Carolina (McNair, 1984)).

Acknowledgments. I thank D. M. Forsythe and two anonymous reviewers for their critical comments. Records in Briefs for the Files of The Chat and Sightings of Alabama Birdlife are not cited below.

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Breeding ranges of *Carpodacus* finches wintering in South Carolina

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House Finches (*Carpodacus mexicanus*) and Purple Finches (*C. purpureus*) frequently visit feeders in South Carolina. Although Purple Finches are native to the eastern United States and traditionally winter in SC, House Finches were introduced to the eastern US only recently. The first record for House Finches east of the Great Plains came from Jones Beach, Long Island, New York in 1941 (Elliot and Arbib, 1953). A New York bird dealer apparently released captive House Finches after their sale (under the name of "Hollywood Finches") was banned. On the basis of historical and morphological evidence, Aldrich and Weske (1978) concluded that the eastern House Finch population descended from California stock.

Since their introduction, House Finches have spread rapidly throughout the eastern US. House Finches reached SC in the winter of 1966-67, with breeding records for the state beginning around 1975 (see Potter et al, 1980; Hamel and Wagner, 1984 for review). The first known House Finch nests in the Clemson area were found in 1983 (Hamel and Wagner, 1984). House Finches now frequently nest in trees and shrubs on the Clemson University campus and throughout residential areas of the city and represent one of our most common winter bird species.

Although both House Finches and Purple Finches are common winter residents, little is known about the origins (i.e., nesting localities) of *Carpodacus* finch populations that winter in SC. We used information from our banding studies and band recovery information from the Bird Banding Laboratory (U.S. Fish & Wildlife Service, Laurel, Maryland) to determine nesting localities of SC winter finch populations.

Between 1967 and 1987, SC ornithologists banded 1843 House Finches. A total of 8516 Purple Finches was banded in the state between 1955 and 1987. We used birds banded while wintering in SC and recaptured later on their breeding grounds, and birds originally banded during the breeding season and later found wintering in SC, to determine states and provinces in which finches breed. For House Finches, we defined the breeding season as 15 April through the end of August (based on observations of breeding House Finches in the Clemson area) and the winter season as November through March. We restricted the nesting season for Purple Finches to the period between 25 April and the end of August. We assumed that individuals captured during the breeding season represented birds that hatched or had nested in that area.

Of 14 recoveries involving SC House Finches (between 1983 and 1989), eight birds wintered in SC and nested (or were raised) elsewhere. The states to which House Finches moved to breed included Virginia (n=2), Pennsylvania (2), North Carolina (1), New York (1), Massachusetts (1), and New Hampshire (1). Six of 11 House Finches that were recaptured after spending the winter in North Carolina nested in Pennsylvania (Stewart, 1989). Although these data indicate that House Finches wintering in the Carolinas migrate north to breed, a segment of the population remains throughout the year. For example, we color-banded House Finches during the nesting season in the Clemson, SC area and re-sighted birds (n=3) at winter feeding stations. Gill and Lanyon (1965) reported similar results for resident House Finches in New York. More banding recoveries are obviously needed to fully understand the migratory behavior of House Finches in the eastern US.

In contrast to House Finches, Purple Finches do not breed in SC (Post and Gauthreaux, 1989), so recovered individuals represent winter residents and migrants only. We gleaned information on breeding areas from 28 of 121 recoveries (1929 to 1988) involving Purple Finches wintering in SC. These 28 Purple Finches nested (or hatched) in Maine (n=8), Vermont and Quebec, Canada (3 each), New Hampshire, Massachusetts, Connecticut, Pennsylvania, and Wisconsin (2 each), Nova Scotia, New Brunswick, New York, and Minnesota (1 each). Thus, most Purple Finches wintering in SC bred in eastern states or provinces, while only a small fraction migrated to states in the Midwest (i.e., Wisconsin and Minnesota).

We thank the staff at the Bird Banding Laboratory and the banders who have contributed data. Without their efforts this report could not have been compiled. Financial support for research on *Carpodacus* finches has been provided by the Eastern Bird Banding Association, a Paul A. Stewart Award from the Wilson Ornithological Society, and Sigma Xi, The Scientific Research Society.

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Some Observations of the Singing Behavior of Bachman's Sparrow

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The following observations of the singing behavior of Bachman's Sparrow (*Aimophila aestivalis*) were made during the breeding seasons of 1986 and 1987 in the Croatan National Forest, Carteret County, N. C. Bachman's Sparrow is known for its outstanding primary advertising song, which has been described and analyzed by Borror (1971) and Wolf (1977).

The song period of Bachman's Sparrow begins in late February or early March in the Croatan, continues into August, and a few birds sing sporadically into early September. In early May 1987, two birds began to sing 40 min before sunrise. On 18 and 19 May 1987, four territorial males with contiguous territories had finished singing by 1830 h (EST). In another area, on 14 August 1986, a territorial male snag until 2015 h (EST), by which time it was quite dark.

The Bachman's Sparrow usually tilts its head slightly upward when singing its primary advertising song. When singing the whisper song or *soto voce*, the head usually is not tilted. I have heard the primary advertising song from as far away as 213 m (approximately 700 feet).

One male sang 99 songs from the same position on a Longleaf Pine (*Pinus palustris*) limb, from 0930 to 1010 h. This individual rested on its abdomen on the limb with its breast feathers fluffed out, an unusual singing posture. Territorial countersinging between birds was common. Two males, perched approximately 60 m apart, alternated songs for 35 min.

In one territory, singing occurred in an area of 1.2 ha during the courtship period, but was restricted to a smaller area (0.6 ha) a month later in the incubation and nestling period. In the vicinity of the nest, the male usually sang whisper songs. It seldom sang closer than 30 m from the nest; on one rare occasion he sang an abbreviated song approximately 1 m from the nest. Occasionally the male would briefly visit the nest while the female was incubating, leave and sing a twittering flight song. Mengel (1951) described the flight song of a Bachman's Sparrow in Kentucky as similar to "a much speeded-up Indigo Bunting (*Passerina cyanea*) song of wren-like quality." I had the same impression.

A male that I observed with fledged young on August 14-16, sang frequently, but most songs were incomplete or subdued during this period. From 1130 to 1330 h on 14 August, it sang at various times for 36 min. It was usually perched on the lower limbs less than 7 m in height of a Longleaf Pine when singing.

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A Ruff Sight Record for South Carolina

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On 5 May 1989 I observed a Ruff (*Philomachus pugnax*) at the Corps of Engineer's dredged-spoils site, on the east side of US 17A, just before crossing the Savannah River in extreme SW Jasper County, S. C.

The Ruff was in a mixed flock of shorebirds including: Greater Yellowlegs (*Tringa melanoleuca*), Lesser Yellowlegs (*T. flavipes*),.Willets (*Catoptrophorus semipalmatus*), Dunlins (*Calidris alpina*), assorted peeps and both dowitcher species (mainly *Limnodromus scolopaceus* , and some *L. griseus*). I was able to compare the Ruff with the associated species in good light from as close as 60 m with 7X power binoculars and a 15-60X telescope for 15 to 20 min. I was able to see clearly the bird's erect posture, scaley-brown back and flesh-colored legs. I also could see distinct white ovals on each side of the tail when it flew. The bird was still present and east to observe when I left the site two hours later. On subsequent trips later that week, I failed to relocate the Ruff.

This is the sixth documented record for this species in South Carolina (Post and Gauthreaux, Contrib. Charleston Mus.18, 1989) and the second report from this site (Cooper, *Chat* 51:71, 1987).

Glaucous Gull at Huntington Beach State Park, South Carolina

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On 10 January 1990, we observed and photographed (see cover & Fig. 1) a Glaucous Gull (*Larus hyperboreus*) at the South Jetty of Murrells Inlet, Huntington Beach State Park, Georgetown Co., S. C. We watched the bird for 15 minutes in good light with 7x binoculars at distances of less than 15 m. The bird was in second winter plumage and at close range the white eye-ring was visible. When flying with Herring Gulls (*L. argentatus*), the bird appeared somewhat larger with a longer and heavier bill.

The Glaucous Gull is considered a casual winter visitor on the South Carolina Coast (Post and Gauthreaux, 1989, Contributions Charleston Museum: 18). To date there have been about seven documented records including two specimens (Post and Gauthreaux, op. cit., Sprunt and Chamberlain, 1949, South Carolina Bird Life, Univ. South Carolina press, Columbia). This sighting is the eighth record and the first with photographic documentation.

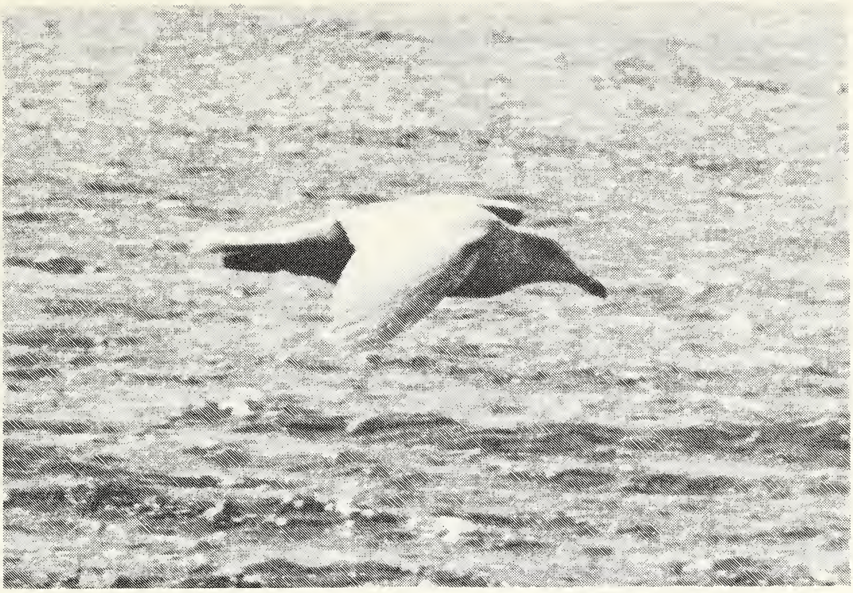


Fig. 1. Glaucous Gull in flight at Murrells Inlet, South Carolina on 10 January 1990. Photo by Pete Laurie.

CBC Rare Bird Alert
(704) 332-BIRD

BRIEFS FOR THE FILES

HARRY E. LeGRAND JR.

(All dates 1989 unless otherwise indicated)

RED-THROATED LOON: Very rare in summer were two seen on 18 July by Herb Hendrickson at Cape Hatteras point, N.C.; he saw another on 21 July at Whalebone Junction, Dare County, N.C.

COMMON LOON: Single birds were found inland at Lake Townsend near Greensboro, N.C., on 6 and 22 June (Herb Hendrickson) and at Jordan Lake in Chatham County, N.C., on 18 June (Ken Knapp). John Batson saw one on 23 June at Huntington Beach SP, S.C.

PIED-BILLED GREBE: Quite uncommon and local as a breeder in North Carolina, a pair with young was seen by Sam Cooper on 12 July at an impoundment near Aurora.

GREATER SHEARWATER: A good pelagic count was 55 seen off Oregon Inlet, N.C., on 15 July by Paul DuMont and party.

SOOTY SHEARWATER: Rather late and unusual "inland" was a weakened bird caught by hand in Bogue Sound at Emerald Isle, N.C., on 14 July by Bill Moffitt and John Fussell.

AUDUBON'S SHEARWATER: Larry Crawford noted thousands of shearwaters, mostly this species, about 35 miles off of Cape Lookout, N.C., on 25 June. Greater, Cory's, and four or five Sooty shearwaters were also seen.

WHITE-TAILED TROPICBIRD: Three adults seen together by Larry Crawford off Cape Lookout, N.C., on 23 July was an excellent one-day count.

AMERICAN WHITE PELICAN: An excellent count of 24 was made by R.W. Kost on the Folly River near Charleston, S.C., on 12 August. One spent several weeks in the summer at Beacon Island in Ocracoke Inlet, N.C.; it was seen on 13 July by John Fussell, David Fletcher, and Deb Squires.

ANHINGA: Jay Carter saw six or seven on 23 July at Dunahoe Bay in northern Robeson County, N.C. The species has nested at this Carolina bay previously and likely still nests there.

AMERICAN BITTERN: This species has not been recorded to nest in the Carolina piedmont, but Dick Brown's finding of individuals (or the same bird) on 12 May and 4 August in a wet meadow near Concord, N.C., was most unusual. One noted on 15 June at Bodie Island, N.C., by John Fussell was a possible local breeder.

LEAST BITTERN: At a wet meadow west of Concord, N.C., Dick Brown heard one calling on 12 May, and he flushed two birds, one perhaps a juvenile, on 4 August.

LITTLE BLUE HERON: Perry Nugent found about 150 adults nesting, though no nests were actually seen, in the southern part of Francis Marion National Forest, S.C., from April to June.

REDDISH EGRET: Very rare in North Carolina was an immature found by Merrill and Karen Lynch at the west end of Sunset Beach on 18 June, and it was still there on 22 July (Eric Dean).

CATTLE EGRET: Apparently the first report of inland nesting in North Carolina was the discovery of perhaps 50 nests at Dunahoe Bay, Robeson County, N.C., as noted by Jay Carter on 23 July.

WHITE IBIS: Locally rare were three immatures seen in central Halifax County, N.C., on 17 July (Frank Enders) and two immatures seen at Raven Rock SP, N.C., on 24 July (Paul Hart).

WOOD STORK: A remarkable seven birds were seen on 9 and 10 July near Brevard, N.C., by Charles and Leona Owen (fide Norma Siebenheller), and one immature was seen and photographed at a golf course near that town on 12 and 13 July by Betty McIlwain. Another western North Carolina record was an immature found sick in Lenoir on 16 July by Tony Robinson and Allen Boynton; it later died. Six adults were rather rare near Britton's Neck in Marion County, S.C., on 16 July (Steve Thomas).

GADWALL: Sam Cooper confirmed nesting of this species at an impoundment near Aurora, N.C., during the summer. One bird near the Cedar Island, N.C., ferry terminal on 12 June (John Fussell) might have been a local breeder.

SURF SCOTER: This species is seldom seen in the Carolinas in summer; thus, notable was a female at Ocracoke Inlet, N.C., on 13 July (John Fussell, Deb Squires).

RUDDY DUCK: There are a few breeding records for coastal Carolina.However, none of the following birds showed evidence of nesting: individuals all summer, peaking at 19 on 20 June, near Aurora (Sam Cooper); five males at Goldsboro, N.C., all summer (Eric Dean); and one male on 28 July at Sumter, S.C. (Lex Glover, Evelyn Dabbs).

MISSISSIPPI KITE: Out of range was one seen over Ocracoke Island, N.C., during the first week of June (fide Marcia Lyons).

NORTHERN HARRIER: This species is believed to nest sparingly at extensive marshes in eastern North Carolina; however, a female just east of Aurora on 1 June (Sam Cooper) and a female or immature on 23 June on Core Banks near Atlantic, N.C. (John Fussell) were likely non-breeders.

SHARP-SHINNED HAWK: Rare in the breeding season was an adult seen chasing House Finches in Herb Hendrickson's yard in Greensboro, N.C., on 24 and 26 June.

COOPER'S HAWK: Notable in summer was one chasing a dove near Eureka, Wayne County, N.C., on 24 June (Eric Dean).

BROAD-WINGED HAWK: The breeding status of the species over most of the coastal plain is uncertain; thus, notable were two seen near the coast at Smyrna, Carteret County, N.C., on 25 June by John Fussell and Deb Squires.

PEREGRINE FALCON: At least two birds, and perhaps three, remained at Chimney Rock, N.C., until late July, according to Simon Thompson. No breeding evidence was noted.

AMERICAN KESTREL: Perry Nugent found three family groups at separate sites in I'On Swamp, S.C., during the summer for rare breeding records for the lower coastal plain.

BLACK RAIL: From May to late July, at least four birds were heard calling, and one or more were seen, at several sites at Bear Island Wildlife Management Area, Colleton County, S.C. Dennis Forsythe made the initial report. The species is apparently not rare in some of the fresh to brackish coastal marshes in that state, but this appears to be the first recent record suggestive of breeding in that state by the Black Rail.

KING RAIL: Notable inland was an adult seen at Becker's Sand and Gravel Company near Fayetteville, N.C., on 31 July (Philip Crutchfield).

VIRGINIA RAIL: A recently fledged juvenile was observed at New Field, Pea Island NWR, N.C., on 22 July by Harry LeGrand, Ricky Davis, Merrill Lynch, and Derb Carter. At several places in marshes along North River in Carteret County, N.C., John Fussell had a good collective count of 14 birds on 15, 18, and 31 July.

BLACK-NECKED STILT: Steve Compton reported a locally rare nesting of the species (two adults and three immatures) during the summer at Brittlebank Park in Charleston, S.C.

SPOTTED SANDPIPER: Undoubtedly non-breeders were one at Portsmouth Island near Ocracoke Inlet, N.C., on 23 June (John Fussell) and another along the Cape Fear River in Raven Rock SP, N.C., on 22 June (Paul Hart, Casey Rhinehart).

WHIMBREL: Infrequent in June were two seen on the 24th at Fort Fisher, N.C., by Sam Cooper.

LEAST SANDPIPER: One was seen on 14 June north of Luark's Hill in Currituck County, N.C., by John Fussell.

WHITE-RUMPED SANDPIPER: Probably late migrants were five seen by Sam Cooper near Aurora, N.C., on 15 June.

BAIRD'S SANDPIPER: Always of note, one was observed by David Wright on 21 July at Pea Island, N.C.

PECTORAL SANDPIPER: Very rare in June was one found by Sam Cooper on 8 June near Aurora, N.C.

CURLEW SANDPIPER: Probably a record total for the Carolinas was four counted at South Pond on Pea Island on 22 July by Ricky Davis, Harry LeGrand, Merrill Lynch, and Derb Carter. Michael O'Brien first noted the species at this site, finding two on 16 July.

RUFF: This rare species was noted from 14 to 17 July at Cape Hatteras point by Paul DuMont, Marcia Lyons, and others.

LONG-BILLED DOWITCHER: Michael O'Brien observed and heard 15 birds at Pea Island on the rather early date of 16 July.

AMERICAN WOODCOCK: Noteworthy near the South Carolina coast in summer were one seen in a salt marsh at the Ashley River at Charleston on 11 June (Steve Compton) and another seen at Mount Pleasant on 28 July (David Chamberlain).

LONG-TAILED JAEGER: An immature was an excellent find on the somewhat early date on 15 July off Oregon Inlet (Paul DuMont party).

RING-BILLED GULL: An immature was notable in the mountains in summer at Lake Junaluska, N.C., on 31 July (Steve Compton).

ROSEATE TERN: John Fussell and Deb Squires saw one, and possibly two, on Vera Cruz Shoal in Ocracoke Inlet, N.C., on 13 July. Another was present again during the summer at Cape Hatteras point, as noted on 22 July by Merrill Lynch and others and on 29 July by Eric Dean. No strong evidence of nesting was seen.

FORSTER'S TERN: Although regular inland in migration, two adults near Greensboro on 14 July (Herb Hendrickson) were notable in summer.

BRIDLED TERN: A fairly good count for South Carolina was 12 birds seen off Charleston on 24 June by Pete Laurie.

SOOTY TERN: The species nested at one, and possibly three, coastal North Carolina sites, but again no young were ever found. Three adults and one nest with an egg were found by John Fussell at Cape Lookout, N.C., on 8 June. He also saw a territorial bird, plus two other adults, on 13 July at Vera Cruz Shoal in Ocracoke Inlet. Jim Parnell noted a pair at Sandbag Island near Harkers Island in June. Two non-breeding adults spent much of the summer at Cape Hatteras, as seen by Marcia Lyons and others.

BLACK TERN: Seven birds, perhaps very early fall migrants, were notable on 20 June at Drum Inlet, N.C. (John Fussell).

BLACK-BILLED CUCKOO: Allen Bryan saw and heard one calling along the Blue Ridge Parkway in Yancey County, N.C., at an elevation of 5200 feet, on 3 June. Another was heard calling at Fairview, in Buncombe County, N.C., on 31 July by Ruth Young.

COMMON BARN-OWL: Pete Worthington reported that four owlets were found in a nest inside an oak that was split during a storm in the summer at Simpsonville, S.C. The young were taken to a raptor rehabilitation center.

NORTHERN SAW-WHET OWL: The first nest ever found in North Carolina was reported by Allen Boynton and others during the summer from Brush Fence Ridge along the Yancey-Buncombe County line. The nest was built in a flying squirrel box. Full details are planned for a national journal. One was heard calling, at the 6000-foot elevation, near Blackstock Knob, Buncombe County, N.C., by Allen Bryan on 22 April.

YELLOW-BELLIED SAPSUCKER: This species is quite local, and rather rare, in the North Carolina mountains as a breeder. Likely on the breeding ground was one seen in late May and early June at an elevation of 3980 feet along the Blue Ridge Parkway in northeastern Buncombe County (Allen Bryan).

ALDER FLYCATCHER: The species continues to be present along Boone Fork in Julian Price Park near Blowing Rock, N.C. Mark Simpson noted two singing on 17 June.

TREE SWALLOW: A new nesting site reported for the species in North Carolina is along the Blue Ridge Parkway, N.C., at milepost 258.9 just south of Northwest Trading Post (Ashe County). Martin Morris saw three eggs on 22 May and three nestlings on 12 June in a bluebird box. The nest was empty on 25 June. Sam Cooper noted that numerous birds were present during the summer in potential nesting habitat at two impoundments with dead trees near Aurora. Snags and cavities were present, but he saw no indication of breeding, despite 33 birds on 8 June and 28 on 15 June; he also had a good early fall count of 1000+ there on 12 July. Eight birds were early fall migrants, presumably, at Bear Island WMA, S.C., on 1 July, as seen by Robin Carter, Caroline Eastman, and Tim Kalbach.

BANK SWALLOW: Very likely early migrants was an excellent total of 75+ on 1 July at the northern edge of Bear Island WMA, S.C. (Robin Carter et al.).

CLIFF SWALLOW: John Fussell observed 10+ birds nesting at a highway bridge at Oriental, N.C., on 6 June, for a notable tidewater breeding record. Birds were also reported at this location in 1988 by Liz Lathrop. Lex Glover reported finding 100+ nests on Tom G. Mangum Bridge below Fishing Creek Dam at Wateree Lake, S.C., on 16 July. He also found 10-20 pairs at three bridges on the west side of Wateree Lake, also on 16 July. The species is not known to nest near Fayetteville, N.C., where eight were rather early migrants on 8 July (Philip Crutchfield, Doris Chambers).

COMMON RAVEN: A pair was present all summer at Chimney Rock Park, N.C., as seen by Simon Thompson, but there was no breeding evidence reported.

BLACK-CAPPED CHICKADEE: This species was present in the Black Mountains of North Carolina about a century ago, but the birds have been absent in recent decades, except for an occasional report. This summer, Allen Bryan saw and heard one giving the fee-bee song at Mount Mitchell on 23 June; a silent bird was with it. He also reported two family groups of Carolina Chickadees in June at this mountain. Alan Smith also reported Black-capped Chickadees from the Black Mountains during the summer, fide Mark Simpson.

WHITE-BREASTED NUTHATCH: Apparently rare in coastal North Carolina counties in summer, one was found by Harry LeGrand in Great Swamp near Bertha, Currituck County, N.C., on 8 June.

HOUSE WREN: If on its breeding ground, one singing along a savanna margin at Green Swamp Preserve, Brunswick County, N.C., on 18 June (Harry LeGrand) was considerably southeast of the previously known range. LeGrand also noted 15+ singing in burned pocosins along the northern edge of Holly Shelter Game Land, Pender County, N.C., on 17 June. At the other extreme of the state, one was seen and heard singing at 6200 feet on Mount Mitchell on 23 June (Allen Bryan).

EASTERN BLUEBIRD: At a high elevation was a pair of bluebirds seen at 6000 feet on Mount Mitchell during June by Allen Bryan.

HERMIT THRUSH: Mark Simpson noted two singing at 5700 feet, about 1/2-mile apart, on Commissary Ridge at Mount Mitchell on 1 July. Despite numerous records of singing males in the spruce and fir forests in North Carolina, no strong evidence of nesting has been reported.

CEDAR WAXWING: Paul Spain noted a fledgling with a parent at Hillcrest Golf Course in Forsyth County, N.C., on 25 July. Presumably at a different location, two pairs with fledged young were seen at Tanglewood Park in that county in June (Bob Witherington, Ramona Snavely). This is the only county in the Carolinas, outside of the mountains, where nesting by waxwings is regularly reported. One bird was out of season near Fayetteville on 8 July (Philip Crutchfield).

SOLITARY VIREO: The first evidence of breeding of the species in the coastal plain of South Carolina was documented by the collecting of a juvenile in Kingstree on 1 August (fide Will Post). Adults were noted there all summer, as well. Robin Carter found the species at several sites in the state's piedmont, where it is poorly known in summer. He found singing males in three spots near Leeds in Sumter National Forest on 10 June, and at one of these sites adults were feeding a newly-fledged young. He also noted one singing in this national forest in Newberry County on 4 June. Paul Hart saw and heard one singing at Raven Rock SP, N.C., on 6 July. [Intensive work in the pine forests, particularly loblolly pines, in the piedmont will likely reveal many new breeding sites for this vireo. — HEL]

CHESTNUT-SIDED WARBLER: Presumably a late migrant was one seen in Polk County, N.C., on 3 June by Simon Thompson.

MAGNOLIA WARBLER: Mark Simpson found two singing males at 4500 feet elevation on the northeastern slope of Grandfather Mountain, N.C., on 2 July. The habitat was spruce trees at the margin of a heath bald.

BLACK-THROATED BLUE WARBLER: A male, of unknown local breeding status, was seen at Chimney Rock Park on 23 July by Simon Thompson.

CERULEAN WARBLER: A new nesting season "colony" site was reported by Mark Simpson on 18 June. He found six singing birds at an elevation of 3300 feet in cove forest along Blue Ridge Parkway milepost 270.4 - 270.7 in Wilkes County, N.C. Simon Thompson noted six territorial males during the summer in the Tryon area. At least three singing males were notable migrants at Charlotte, N.C., on 28 April (Taylor Piephoff, Heathy Walker).

PROTHONOTARY WARBLER: Quite rare in counties along the Blue Ridge escarpment was a male on territory from 12 June to late July at Lake Adger in Polk County (Simon Thompson).

SWAINSON'S WARBLER: Evidence of nesting of the species is infrequently reported; thus, of interest was a pair seen feeding a young out of the nest along Rocky Fork Creek near road 750 in Oconee County, S.C. Ned and Teddy Shuler and Carla Heddon saw the birds on 26 June. An excellent total of seven singing males was present at Chimney Rock Park through July, according to Simon Thompson.

OVENBIRD: Seldom if ever previously reported from the Outer Banks in summer, one "upset" adult was seen on 20 July in Kitty Hawk Woods, N.C., by John Fussell. Robin Carter noted at least six birds in the Leeds, S.C., area in dry oak-pine woods during the summer; and a newly-fledged young was seen being fed by an adult there on 10 June by Carter.

LOUISIANA WATERTHRUSH: This is an early fall migrant; thus, two were likely migrants at Fairlawn Plantation in Francis Marion National Forest, S.C., on 15 July (Perry Nugent party).

MOURNING WARBLER: An early migrant, believed to have been an adult female, was seen within 7 feet by Frank Enders in a powerline clearing in central Halifax County, N.C., on 15 July.

CANADA WARBLER: Though the species is not known to nest at Chimney Rock Park, one seen by Simon Thompson on 22 July might have been a dispersing individual from a nearby nesting locale.

SCARLET TANAGER: Well to the east of the usual breeding range was a male seen singing, in rather thin deciduous woods, in the Myrtle Head area of northwestern Brunswick County, N.C., on 18 June (Harry LeGrand). Robin Carter noted one singing male in the Leeds area of Chester County, S.C., plus another in nearby Union County along Broad River in Sumter National Forest, during summer field work.

ROSE-BREASTED GROSBEAK: Robin Carter and Caroline Eastman saw a singing male near the top of Sassafras Mountain, S.C., on 24 June (3400 feet elevation). This species has never been found breeding in that state, but as it nests not far away in North Carolina, it is a good "candidate" for breeding in South Carolina.

BACHMAN'S SPARROW: Robin Carter has found the species not at all rare in summer in much of the South Carolina piedmont. This summer he found at least three singing near Bullock Creek in southwestern York County on 4 June, plus another on this date near Lockhart.

FIELD SPARROW: Near the high altitude limit of breeding in North Carolina was one singing at 6000 feet on Mount Mitchell on 23 June (Allen Bryan).

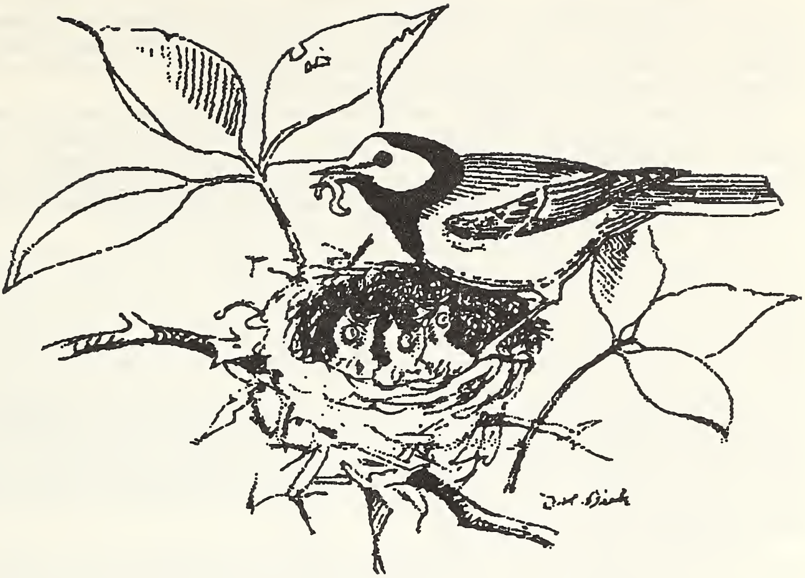
GRASSHOPPER SPARROW: Rather rare in the sandhills in summer were two seen and heard near West End, N.C., on 20 July (John Hammond) and one heard on 31 July near Wagram, N.C., by Jay Carter.

HENSLOW'S SPARROW: Allen Bryan found a major "colony" in a recent clearcut in eastern Bertie County, N.C., on 16 July. He noted about 10 birds near the intersection of US 17 and SR 1502. Two were heard singing by Harry LeGrand in a savanna at the Green Swamp Preserve in central Brunswick County, N.C., on 18 June.

DARK-EYED JUNCO: At a very low elevation (2000-2500 feet) was the finding of several pairs feeding young at Chimney Rock Park in July (Simon Thompson).

BOBOLINK: Rather late migrants were a male and a female seen near Aurora on 1 June by Sam Cooper.

NORTHERN ORIOLE: Ramona Snavely reported that the species was confirmed nesting in June in Forsyth County, N.C., the only county outside the mountains in the state where the species is somewhat regular in summer.



BOOK REVIEWS

BIRDS OF COLONIAL WILLIAMSBURG: A HISTORICAL PORTFOLIO

Alan Feduccia. 1989. Illustrations by H. Douglas Pratt. The Colonial Williamsburg Foundation, Williamsburg, VA 21387. Hardback. 186 pp. $29.95.

This is a big ($11\frac{1}{2}$ by $12\frac{1}{4}$) beautiful book that appears to have been primarily designed to look attractive on a living room coffee table after you have returned from your last visit to colonial Williamsburg. Its secondary purpose is to tell you something about the birds of the eighteenth century of Virginia and the Carolinas based on the writings of John Lawson and Mark Catesby. Alan Feduccia, of the University of North Carolina at Chapel Hill, is one of the most knowledgeable people on the ornithological writings of this colonial period as exemplified by his recently published Catesby's Birds of Colonial America. Illustrator H. Douglas Pratt, formerly of Charlotte, North Carolina is an accomplished artist with a list of outstanding contributions.

In its primary function, the book is an overwhelming success. The artwork is superb. The print is beautiful. The lay-out is exceptionally well-done. The cover and the binding are all first-rate. The book looks good! There is, unfortunately, one technical flaw in the artwork that I stumbled over. The flaw is almost certainly a function of missed communication between the author and the illustrator. On page 34, Feduccia notes correctly that the Downy Woodpecker can be differentiated from the Hairy Woodpecker by the former possessing "black markings on the outer white tail feathers" while the latter species has unmarked white outer tail feathers. There on the facing page is a very attractive Downy Woodpecker that lacks the dark markings on the outer white tail feathers. The illustration of the Hairy Woodpecker on the very next page also lacks markings on the outer tail feathers. I am confident that anyone who tries using this book to learn about woodpecker identification will become confused.

The book starts with a five page introduction to the history of ornithological studies in colonial Virginia and the Carolinas, with special emphasis on the works of Lawson and Catesby. Anyone who has tried watching birds in the eastern part of the Carolinas cannot fail to be impressed by how much these early naturalists accomplished with none of the advantages of modern transportation.

There then follows a series of commentaries on selected bird species in no perceivable ordered sequence. The organization of the book is a little strange to a professional ornithologist, but shouldn't cause undue problems to amateurs. Each commentary provides some explanation about the meaning of the species' name, a concise description of what the bird looks like, and some information about its habitat preferences, residence status and other interesting life-history tidbits.

As is probably inevitable, a few errors have crept into the commentaries that could have been avoided in a more careful review process. For example, *macroura* in the scientific name of the Mourning Dove does not mean "mourning" as stated, but rather refers to the "large tail" of the Mourning Dove relative to that of the more familiar Rock Dove (Common Pigeon). Similarly there are not just two species of cuckoo occurring in North America. Even if we ignore the two species of ani and the Greater Roadrunner on the grounds that they don't have cuckoo in their names, there is still the Mangrove Cuckoo of south Florida. A similar systematic misstatement is the suggestion (page 88) that the wood warblers are more closely allied with the vireos when the ornithological concensus is a closer alliance to the tanagers, sparrows and blackbirds. My eyebrows also went up on reading that Red-breasted Nuthatches had nested in bluebird boxes at Williamsburg, as this is far beyond the known breeding range of this species.

In summary, I recommend this book if you want to invest in a lovely addition to the top of your coffee table that will help to remind you of the beauty and charm of historic Williamsburg. At the same time I caution you that this is not a guide to bird identification and some of the information included may not be completely reliable.—H. T. Hendrickson

Farm Wildlife

During early stages of agricultural development in America, many species of wildlife flourished as axes and plows created openings in the forest canopy of the prairie sod, resulting in subclimax plant communities interspersed through climax types and new sources of foods in the form of seed-bearing annuals and cultivated crops. But such gains were arrested and reversed when intensification of farming eliminated these favorable factors. Thus, today, much of our farm wildlife is in decline.

The wildlife manager is now being called upon to re-create essential elements of the habitats of those species highly valued by the public. The list of valued farm species is no longer only those of interest to the hunter; it now includes those sought by many other recreationists. To find the tools to do this job, the manager looks not only to his/her own agency, but also to publicly-financed programs in agriculture and forestry and the efforts of individuals, groups and corporations. The manger's task has become vastly more complex.

Issue No. 86 of the FWRS Newsletter identifies some of the research, surveys and management efforts undertaken to assist the manager in this endeavor. The reports represented are important, for they describe some of the measures and approaches applicable to this task.

For a copy of Newsletter No. 86, or more information about farm wildlife, call the Fish and Wildlife Reference Service at 1-800-582-3421.

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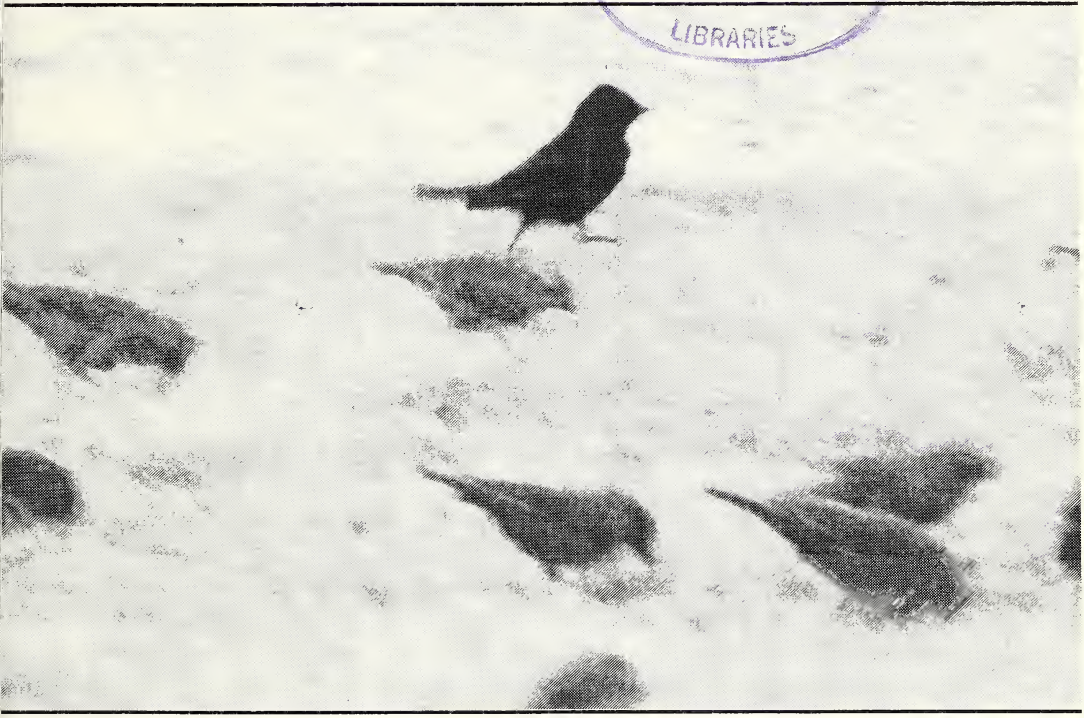

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OUR COVER— Shiny Cowbird near Aurora, N. C. The relatively flat forehead, thin bill, and dark head are visible. The lighter colored wings represent a very dark glossy blue-green color. Photo by S. Cooper, See note starting on page 82.

BIRD SIGHTINGS IN THE CAROLINAS ASSOCIATED WITH HURRICANE HUGO

HARRY E. LeGRAND JR.

During the latter half of September 1989, one of the strongest hurricanes ever recorded roared through the West Indies and headed for the United States. Rather than swinging in an arc through the western West Indies and up the Florida coast, as is often expected, Hurricane Hugo tracked a rather straight northwesterly course toward the coast of Georgia and South Carolina. Winds intensified to approximately 135 mph, and the storm made a direct course for the central South Carolina coast on 21 September. At midnight on 21-22 September, Hugo made landfall near Isle of Palms, with 130+ mph winds. The storm tracked northwestward toward Sumter, South Carolina, and Gastonia, North Carolina. In fact, the storm's winds were 75-90 mph (still hurricane strength) when it reached the North Carolina border around 6 am on 22 September. The storm arced slightly to the north-northwest, and it departed North Carolina in the general vicinity of the tri-state border with Virginia and Tennessee.

The hurricane was perhaps the most destructive natural disaster to hit the United States in recent decades, in terms of destroying natural habitats and associated wildlife. This report, however, will center on the notable bird records brought to the inland portions of the Carolinas, particularly to lakes, by Hurricane Hugo.

OBSERVATIONS

Somewhat surprisingly, no significant bird records were reported from the coastline. Generally speaking, hurricanes that make landfall produce strong onshore winds on their northeast and east sides; the counterclockwise flow around the eye produces a southeasterly wind flow at the eastern edge of the storm. Thus, there were probably some significant pelagic bird numbers carried to the coastline of South Carolina farther up the coast from Isle of Palms. However, the extremely high winds blew down numerous trees and utility lines and poles across roads, making accessibility to coastal areas nearly impossible for several days. In strong hurricanes with a well-developed eye, such as Hurricane Hugo, large numbers of seabirds are caught within the eye, which is relatively calm compared with the stormy conditions elsewhere. As a hurricane passes onshore, these seabirds are carried inland and begin to drop out of the storm onto lakes or even lawns and parking lots. Other birds presumably fight their way out of the eye and attempt to fly back to the ocean. At any rate, lakes and ponds in the general vicinity of the route of a hurricane often host seabirds or other coastal birds for a day or two following storm passage.

Observers inland found numerous coastal and pelagic species on reservoirs, and a few observers had birds at parking lots and lawns. Those birds at parking lots and lawns were usually the most exhausted ones, and most were reported close to the path of the hurricane. Farther from the path, the birds were less exhausted and were generally found at reservoirs and other water bodies, usually appearing in good health.

There is no evidence that any of these inland birds were blown from the coast to such locales by the strong winds. Strong winds over the ocean frequently blow shearwaters and other pelagic birds close to shore, where they can be seen by birders at selected sites, such as Cape Hatteras, North Carolina (see Buckley 1973). However, hurricanes that do not come ashore, or those that come ashore in a weakened condition with no eye, seldom produce inland records of seabirds.

This paper includes those species and records that appear to be related to the passage of Hurricane Hugo; it is modelled after the paper by Fussell and Allen-Grimes (1980) detailing observations associated with Hurricane David in 1979. The species are listed in phylogenetic order. Ring-billed Gulls are not included, even though moderate numbers were involved, because they are not unusual on inland lakes in late September. Sooty Shearwaters were reported from one lake; however, this report is considered very unlikely as the species is very rare in the western Atlantic after late June and is seldom reported on fall pelagic trips (Lee and Booth, 1979; Lee, 1986).

CORY'S SHEARWATER: While not previously reported inland in South Carolina, according to Post and Gauthreaux (1989), 50 were observed by Glenn Smith at Lake Murray, S.C., on 23 September. No details were provided.

AUDUBON'S SHEARWATER: Eric Dean and Gene Howe observed one, providing good details, at Quaker Neck Lake at Goldsboro, N.C., on 22 September. This appears to be the first record for the state away from the tidewater zone.

LEACH'S STORM-PETREL: A first inland record for North Carolina was one seen resting on Lake Norman, at the SR 1109 bridge in southern Iredell County, on 23 September. Ricky Davis, Derb Carter, and Harry LeGrand identified it by the sooty (not blackish) coloration, lack of white on the rump at rest, and seemingly largish size. It was flushed with a rock; its characteristic bounding flight was noted, as were the forked tail and very pale upper wing bar.

WHITE-TAILED TROPICBIRD: Allen Bryan observed an immature perched on a stump at Moss Lake near Shelby, N.C., on 22 September. This appears to be the third inland record for the state, with the other two records being of adults seen at Jordan Lake in Chatham County, also following hurricanes (Chat 44:92; Chat 50:22-23).

BLACK-BELLIED PLOVER: Three were at a lake east of Columbia, S.C., on 22 September (Robin Carter, Dennis Forsythe, et al.).

WILLET: One was seen at a lake east of Columbia, S.C., on 22 September by Robin Carter, Dennis Forsythe, and others. A group of nine was at Moss Lake near Shelby, N.C., on 22 September (Bryan).

WHIMBREL: David Wright saw one in flight at Lake Norman on 22 September.

MARBLED GODWIT: One seen at a lake east of Columbia on 22 September (Carter, Forsythe, et al.) was a first inland record for South Carolina. A group of four was found at Moss Lake near Shelby, N.C., on 22 September (Bryan); there are only a few previous state inland records.

POMARINE JAEGER: In North Carolina, Eric Dean and Gene Howe saw two at Quaker Neck Lake at Goldsboro on 22 September. On 23 September, an immature was seen at Moss Lake near Shelby by Allen Bryan, Ricky Davis, Derb Carter, and Harry LeGrand.

PARASITIC JAEGER: A count of 15 was made by Glenn Smith on 23 September at Lake Murray, S.C. However, as jaeger identification can be difficult, it is likely that this total represented other species, as well.

SOUTH POLAR SKUA: One was reported by Glenn Smith on 23 September at the Lake Murray, S.C., dam. No details were provided. There are no previous inland records for the state, and the species is considered hypothetical (Post and Gauthreaux 1989).

LAUGHING GULL: In South Carolina, 60 were seen east of Columbia on 22 September (Carter, Forsythe, et al.). Several were seen by Carter and others at Lake Murray, S.C., on 23 September. Lex Glover noted 75 at Lake Wateree on 23 September.

In North Carolina, a remarkable 285 were seen at several sites around Shelby, N.C. — including a parking lot — on 22 September (Bryan). A total of 55+ was found by Dean at Goldsboro on 22 September, and one was seen on that date by Mike Tove, Ricky Davis, and Harry LeGrand at Jordan Lake. Also on 22 September, one was noted at Lake Wheeler near Raleigh by Jim Mulholland. At Lake Norman, many were seen on 22 September by David Wright; only one was reported there on 23 September, by Taylor Piephoff.

HERRING GULL: Allen Bryan saw 45 in the Shelby, N.C., area on 22 September. Seven were seen at Lake Norman on that date (D. Wright).

CASPIAN TERN: In South Carolina, three were east of Columbia on 22 September (Carter, Forsythe); eight were at Lake Wateree on 23 September (Lex Glover). Five were at the Lake Murray dam on 23 September, and another was at Billy Dreher Island on this lake on the same date (Smith).

In North Carolina, 16 were counted at Shelby by Bryan on 22 September. Four were at Jordan Lake on that date (Davis, LeGrand, Tove), and one was seen at Fayetteville (Philip Crutchfield). Two were seen at Lake Norman on both 22 September (D. Wright) and 23 September (Piephoff).

ROYAL TERN: In South Carolina, one was east of Columbia on 22 September (Carter, Forsythe). On this date seven were at the Lake Murray dam (Kevin Calhoon). Two were seen by Lex Glover on 23 September at Lake Wateree. An outstanding total of 150 was noted by Glenn Smith at the Lake Murray dam on 23 September; he also saw 30 on this date at Billy Dreher Island at this lake.

In North Carolina, 12 were at Goldsboro on 22 September (Dean). On this date, Bryan saw seven at Shelby, and one was seen at Jordan Lake (Davis, Tove, LeGrand). Two were found at Jordan Lake on 23 September (Paul Saraceni). One was seen at Lake Norman on 22 September (D. Wright) and again on 23 September (Piephoff).

SANDWICH TERN: In South Carolina, where there are apparently no previous inland records (Post and Gauthreaux 1989), one was east of Columbia on 22 September (Carter, Forsythe). Also, on this date 25 were at the Lake Murray dam, as seen by Kevin Calhoon. On 23 September, three were noted by Lex Glover at Lake Wateree, and three were also seen at Lake Murray by Glenn Smith. Surprisingly, there were no reports from North Carolina.

COMMON TERN: In South Carolina, one was east of Columbia on 22 September (Carter, Forsythe).

In North Carolina, 35+ were at Goldsboro on 22 September (Dean). Bryan saw approximately 135 in the Shelby area on 22 September, and on that date 12 were at Jordan Lake (Davis, et al.). Also on 22 September, about 36 were noted at Fayetteville by Philip Crutchfield. On this date at Lake Norman, approximately 34 were seen by David Wright. On 23 September, 25+ were seen at Lake Norman by Taylor Piephoff; David Wright saw about 40 that same day on that lake, presumably involving some duplication with Piephoff's count. One was present at Greenville on 24 September (John Wright).

ARCTIC TERN: A first inland record for the Carolinas was one seen closely in a parking lot at Shelby, N.C., on 22 September by Allen Bryan.

FORSTER'S TERN: In South Carolina, 35 were counted at lakes east of Columbia on 22 September (Carter, Forsythe). On this date, Lex Glover counted 24 in a parking lot at Lugoff, with perhaps twice that number flying around the area. Glover also saw 20 at Lake Wateree on 23 September.

In North Carolina, Bryan saw 200+ in the Shelby area on 22 September; 10 were at Jordan Lake on that date (Davis, et al.). Saraceni counted 16 at Jordan Lake on 23 September. David Wright tallied 12 at Lake Norman on 22 September and three the next day.

LEAST TERN: Four were seen flying over Riverbanks Zoo at Columbia, S.C., on 22 September (Kevin Calhoon). In North Carolina, six were seen in a parking lot at Shelby on 22 September by Robert Ruiz.

BRIDLED TERN: In North Carolina, Allen Bryan saw one in a parking lot at Shelby on 22 September. Taylor Piephoff saw two, an adult and an immature, on 23 September at Lake Norman. The species has previously been seen inland in North Carolina at Lake Waccamaw following the passage of Hurricane Diana in 1984 (LeGrand 1985). None were reported from South Carolina.

SOOTY TERN: In South Carolina, two were observed by Glenn Smith at Lake Murray on 23 September.

In North Carolina, an immature was seen at the Goldsboro water treatment plant on 22 September (Eric Dean). One was noted at Shelby on 22 September (Bryan). Two adults and one immature were seen by LeGrand, Davis, Tove, and others at Jordan Lake on 22 September; and Davis saw one at Falls Lake in Durham County on that date.

BLACK TERN: In North Carolina on 22 September, three were at Goldsboro (Dean), nine were at Shelby (Bryan), 10 were at Jordan Lake (Davis, et al.), and one was at Lake Norman (D. Wright). Five were seen at Lake Norman the next day (LeGrand, et al.). Surprisingly, none were reported from South Carolina.

BROWN NODDY: A first inland record for North Carolina was the sighting of a group of three birds at Lake Norman on 23 September by David Wright. He saw the birds flying past him at close range for about 40 seconds. He noted the white cap, brown plumage, and long, pointed tail (never spread to see the wedge shape).

BLACK SKIMMER: In South Carolina, 12 adults were seen at the Lake Wateree dam on 23 September by Lex Glover. In North Carolina, a remarkable total of 27 was counted in the Shelby area by Allen Bryan on 22 September. One was seen and photographed at the base of Cowan's Ford Dam at Lake Norman on 22 September by David Wright.

DISCUSSION

The above totals were just "the tip of the iceberg" at a few of the larger lakes. David Wright indicated that dozens of birds at Lake Norman on 22 September were too distant to be identified. A local citizen whose house is located on the shore of that lake told Ricky Davis and Derb Carter that he saw many dozens of "seagulls", presumably mainly terns, over the lake on 22 September. The same scenario likely occurred at Lake Murray, South Carolina, because it is a very large lake where birds in the middle would be very difficult to identify in calm conditions, much less during high winds or rain.

The identification of some of the terns, mainly Forster's and Commons, probably can be questioned. It seems unlikely that only one Common Tern was identified in South Carolina, and I suspect that some of the Forster's reported in that state were Commons. These species are often difficult to identify even at close range in calm winds; as many terns were one-half mile or more from shorelines of the lakes, it might have been better to let many of the terns go simply as "Common/Forster's".

The somewhat late date in September likely was the reason for the rather few reports of Sooty and Bridled terns inland. These pelagic species are often carried long distances by hurricanes; however, numbers dwindle in the Atlantic after mid-September as the birds move farther to the south (see Lee 1986). Surprisingly few tubenoses were reported, considering their abundance as a group offshore in September. For some unknown reason, the common Wilson's Storm-Petrel is very seldom reported inland; most shearwaters also tend to avoid being carried inland by these storms. These species apparently are able to either avoid being "sucked" into the eye, or are able to escape from the eye before being carried inland.

Some comparison should be made with the records produced by Hurricane David in early September 1979 (Fussell and Allen-Grimes 1979). That storm followed somewhat the same inland path as Hugo, except that it came onshore near Savannah, Georgia, and travelled in a northerly direction over the central part of the Carolinas. That storm was not nearly as strong as Hugo. Relatively few birds were carried inland in David's eye; however, large numbers of seabirds, mainly terns, were blown ashore at points farther up the coast (to the northeast) as far as the North Carolina Outer Banks. It is obvious that the well-defined and large eye of Hugo brought thousands of seabirds inland, where they were spotted at reservoirs and other locales. What is not clear is the number of seabirds simply blown to shore at points up the coast from where Hugo came ashore. There were extremely few observers stationed along the coast because of the dangerous physical conditions present. It should be mentioned, however, that a few birders did spend time along the southern coast of North Carolina immediately following the passage of Hugo and saw no pelagic species. John Fussell (pers. comm.) "birded Bogue Banks on 22 & 23 September; I did not see any pelagic birds". Likewise, Sam Cooper (pers. comm.) stated "no pelagic species observed from Hurricane Hugo at Wrightsville Beach or Ft. Fisher on 21 or 22 Sept". I would surmise that a moderate number of seabirds were indeed blown to the coastline, yet no observers who combed the beaches for dead birds on later dates reported the finding of such species.

ACKNOWLEDGMENTS

I wish to thank the following for their correspondence regarding bird sightings related to Hurricane Hugo: Allen Bryan, Kevin Calhoon, Robin Carter, Philip Crutchfield, Ricky Davis, Eric Dean, Dennis Forsythe, Lex Glover, Jim Mulholland, Taylor Piephoff, Robert Ruiz, Paul Saraceni, Glenn Smith, Peter Worthington, David Wright, and John Wright.

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N.C. Natural Heritage Program, P.O. Box 27687, Raleigh, NC 27611

CORRECTION

It has been brought to our attention that the claim of first photographic documentation of Glaucous Gull in South Carolina credited to Laurie & Jenkins (Chat 54:64-65) is incorrect. F. Glenn Smith, George McCoy and Lex Glover saw and photographed a Glaucous Gull at Breech Inlet, Isle of Palms, S. C. on 26 March 1983 (Am. Birds 38:190; Chat 47:79). The photograph was submitted and reviewed by the respective editors of Regional Reports and Briefs for the Files, but not published. Laurie and Jenkins are thus credited with the first *published* photographic documentation of Glaucous Gull in South Carolina. We apologize for any inconvenience created by our oversight.—The Editors

General Field Notes

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NOTICE

Publication of any unusual sightings of birds in the Field Notes or Briefs for the Files does not imply that these reports have been accepted into the official Checklist of Birds records for either North or South Carolina. Decisions regarding the official Checklists are made by the respective State Records Committees and will be reported upon periodically in THE CHAT.

Breeding Evidence of the Mourning Warbler in the Great Smoky Mountains, North Carolina

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In 1983, G. Schmalz and others discovered a pair of Mourning Warblers (*Oporornis philadelphia*) at 1356 m beside Jenkins Ridge Overlook at Blue Ridge Parkway milepost 460.8 about 15 km N of the Oconaluftee Visitors Center, Great Smoky Mountains National Park. The locality is in the Great Smoky Mountains but outside the park boundary on the Swain and Jackson county line in North Carolina. Habitat at the locality is a 0.61-2.44 m high thicket composed of deciduous shrubs and saplings and extensive herbaceous growth, especially of blackberries (*Rubus* spp.), on a steep slope. Chestnut-sided Warblers (*Dendroica pensylvanica*) were numerous in the area.

The pair of Mourning Warblers was first discovered on territory on 16 June. The singing male responded vigorously to playbacks of its own song and to tapes of other Mourning Warbler songs. The female was difficult to observe. In 1983, neither bird was seen bringing food to young at a nest, though observations continued until early July.

In 1984, a pair of Mourning Warblers was seen at the 1983 locality from 4 June through 23 July by Schmalz, the Siebenhellers, and others. Playback of the Mourning Warbler song confirmed the pair was on territory. The male sang, unprompted by playbacks of the song, through at least 7 July. On 5 July at 0930 h, the Siebenhellers watched the male carry a green caterpillar in its bill to the top of blackberry growth before descending to or near the ground. It then reappeared 5 m away from where it landed, without the caterpillar. On unspecified dates in 1984, B. Duyck and R. Warner also saw similar male feeding behavior. The Siebenhellers also saw the female briefly, without food, but she was very secretive. The Siebenhellers are convinced the pair was feeding young at the nest but were unable to locate it despite an arduous search. Two days later, H. E. LeGrand, Jr., noted that the male became very agitated when he walked near the warbler's presumed nest site. No observers remarked that they saw distraction displays by either parent.

In 1985, the Siebenhellers found a male Mourning Warbler singing constantly on territory on 6 and 14 June at the locality of previous sightings. The male was apparently unmated and was not present on either 23 or 30 June, despite a thorough search.

On 22 May 1986, the Siebenhellers again found a male Mourning Warbler at the same locality. The male responded weakly to a playback of Mourning Warbler song. The bird was not relocated a week later.

In summary, a pair of Mourning Warblers was on territory in suitable habitat in June and July of 1983 and 1984, and the male, observed by several individuals, carried food to a presumptive nest site during the latter year. Presumably, the pair was breeding, but no nest or young were found. The nest of a Mourning Warbler is very difficult to find, and even observing adults feeding newly fledged young is difficult (D. B. McNair, pers. obs.). In addition, a male Mourning Warbler was briefly on territory in 1985 and 1986.

Habitat at the Jenkins Ridge Overlook was cut back in 1988, thus keeping the thicket low and suitable for possible reoccupation by Mourning Warblers. Despite the continued availability of suitable habitat at Jenkins Ridge Overlook and many other high elevation localities in the southern Appalachian Mountains south of Virginia and West Virginia, no breeding pairs of Mourning Warblers have been reported on territory during the nesting season south of these two states (Hall, 1983; Kain, 1987). Late spring migrants may be seen in the southern Appalachian Mountains through the second week of June. Thus, the pair of Mourning Warblers which presumably nested at Jenkins Ridge Overlook, North Carolina, is an extralimital breeding record.

Acknowledgments. We thank B. Duyck, G. A Hall, H. E. LeGrand, Jr., and R. Young for responding to our requests for data on Mourning Warblers. We thank H. E. LeGrand, Jr., C. Nicholson, M. B. Simpson, Jr., and an anonymous individual for reviewing this note.

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Nest Reuse in Blue Jays

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A pair of Blue Jays (*Cyanocitta cristata*) built a typical stick nest next to the trunk in the crotch of the lowest limb of a black locust (*Robinia pseudoacacia*), 17.5 m tall, at Asheville, Buncombe County, North Carolina, in 1982. The jay nest was 6.9 m above ground, exposed, and was situated on the E side of the main trunk. The nest tree is located beside Merion Drive, a suburban road, at the edge of a yard and within deciduous woodlands dominated by tulip poplars (*Liriodendron tulipifera*) that average 25 m high. From 1983 to 1986 and in 1988, Blue Jays reused this nest at least once during each breeding season. The nest was somewhat bulkier after the first year, as the jays relined the nest and repaired the rim. Incubation occurred each year, and young fledged from the nest most years. In 1987, jays did not use the nest but built another 1.8 m directly above it, in the fork of another limb next to the trunk. In 1989 the latter nest was still intact but was not reused; the older nest was destroyed by inclement weather during the preceding winter.

In 1985 at Laurel Bloomery, Johnson County, Tennessee, also in the Blue Ridge, a pair of Blue Jays built a typical stick nest next to the trunk in the fork of the lowest limb of a white pine (*Pinus strobus*), 7.6 m tall. The nest was 2.7 m above ground, exposed, and was situated on the N side of the main trunk. The nest tree was in a small grove of pines planted in the backyard of a rural home surrounded by open mixed pine and deciduous woodlands and thickets. The nest was reused by Blue Jays at least once each season from 1986 to 1988 despite being preyed upon, which caused loss of complete clutches at least twice. Young fledged from the nest at least once. The nest, though still in good condition, was not reused in 1989.

Blue Jays may occasionally reuse nests of their own species (Forbush, 1927; Laskey, 1958; Weeks, 1984; Graber et al., 1987) and rarely those of other species, including squirrels (Hilton and Vessall, 1980; Graber et al., 1987; Ehrlich et al., 1988). At least one other avian species, the Sharp-shinned Hawk (*Accipiter striatus*), has reused a Blue Jay nest (Bent, 1937). Our report appears to be the first that documents reuse of a Blue Jay nest more than twice. Our jays were unmarked; consequently, we do not know whether the same jays were involved in reusing the nests at each locality. Dexter (1978) reported that a female Chimney Swift (*Chaetura pelagica*) used the same nest in a chimney for five consecutive years in Ohio, pairing with a different male each time.

The large, open-cup stick nests of Blue Jays may be very durable, as documented herein. Consequently, we believe Blue Jays may reuse their nests more frequently than the few reports suggest. Large, durable, open-cup stick nests of some other passerines, especially Northern Mockingbirds (*Mimus polyglottos*) and thrashers (*Toxostoma* spp.), may also be reused by the same or other species (Finch, 1982; McNair, 1984), but rarely beyond one year. The significance of nest reuse by Blue Jays remains to be determined. For a discussion on the costs and benefits of reusing nests, see Barclay (1988) and Briskie and Sealy (1988).

Acknowledgments. We thank B. Hilton, Jr., L. Moseley and E. F. Potter for reviewing our note.

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North Carolina's First Shiny Cowbird (*Molothrus bonariensis*)

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On 16 November 1989 a single male Shiny Cowbird (*Molothrus bonariensis*) was observed near Aurora, Beaufort County, N. C. It was first discovered in a flock of approximately 45 Brown-headed Cowbirds (*Molothrus ater*) that were feeding on a roadside lawn near the entrance to Texas-Gulf Inc. It was relatively easy to pick out as the darkest bird in the flock. Using 8 x 32 binoculars, from a distance of forty feet, it was obvious the bird lacked a brown head (Figure 1). The bird was about the size of adjacent Brown-headed Cowbirds but appeared slimmer and slightly longer tailed. Its back was dark iridescent purple turning darker and less iridescent on the head. The wings and tail were glossy blue-green. Observations with a 20x telescope revealed a dark brown eye, narrower, more pointed bill, and slightly flatter forehead (see cover photo) compared to Brown-headed Cowbirds.

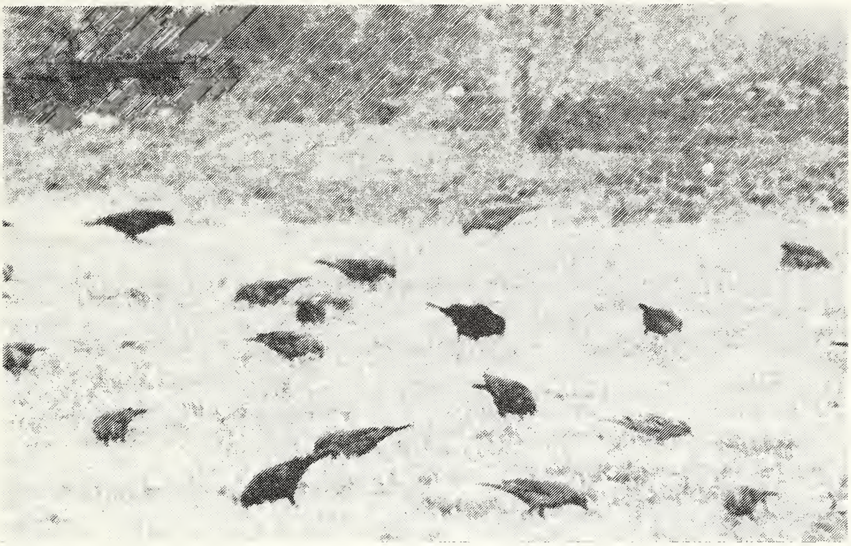

Figure 1. Shiny Cowbird feeding with Brown-headed Cowbirds and House Sparrows near Aurora, Beaufort Co., N.C. Note the completely dark head in comparison with male Brown-headed Cowbirds. Photo by S. Cooper, 16 November 1989.

All field marks indicate that the bird was a male Shiny Cowbird (DeSchauensee, 1970; Dunning, 1982; Hilty and Brown, 1986; Smith and Sprunt, 1987). The lack of a "ruffled neck", thick bill, and red eye separated this bird from a Bronzed Cowbird (*Molothrus aeneus*). Slight structural differences and pure colors indicate that this bird was not an aberrant Brown-headed Cowbird.

The bird was first observed at 0915 h by Alexander P. Smith, Stephanie C. Petter and myself. An attempt to relocate the bird, or the cowbird flock, was unsuccessful at 0945 h. At noon the bird was photographed with a 200 mm lens near the original location with a large mixed flock of Brown-headed Cowbirds, House Sparrow (*Passer domesticus*), European Starlings (*Sturnus vulgaris*), and Red-winged Blackbirds (*Agelaius phoeniceus*).

The bird was always associated with other cowbirds but seemed less "flighty: and more tolerant to disturbances (e.g. traffic and people). Occasionally the bird would cock its tail up with head back and then run from one section of the flock to another (see cover photo).

This is the first record of this species from North Carolina. The expansion of the Shiny Cowbird's range has spread predictably through the Caribbean and more recently into the southeastern United States (Figure 2). Between 1955 and 1977 this species advanced through the Greater Antilles at a rate of 30.6 km (19 miles) per year (Post and Wiley, 1977). Since reaching the United States in 1985, it has spread over 1200 km (700 miles) during four years. Its occurrence in the United States is irregular, but increasing reports and observations of larger flocks suggest this bird will only become more established with time.

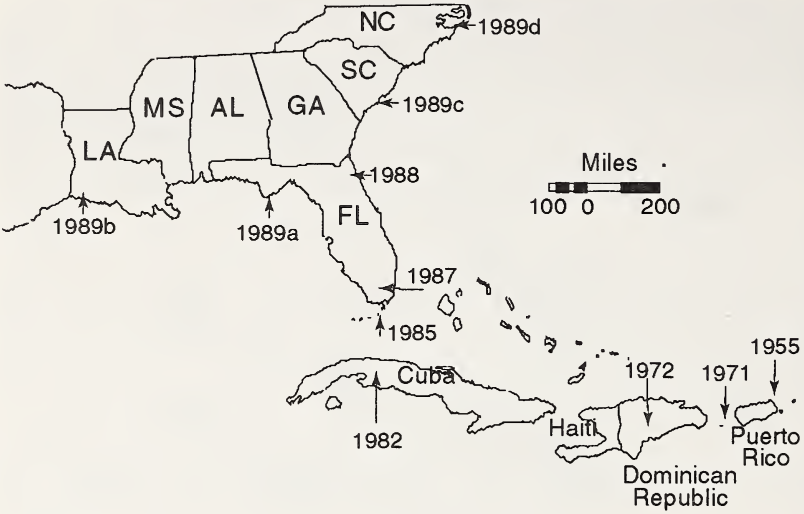

Figure 2. Range expansion of the Shiny Cowbird through the Greater Antilles and southeast North America. 1955: Puerto Rico (Grayce, 1957); 1971: Mona Island (Bond, 1973); 1972: Dominican Republic (Bond, 1973); 1982: north coast of Cuba (Bond, 1984); 1985: Florida Keys (Smith and Sprunt, 1987); 1987: mainland south Florida (Smith and Sprunt, 1987); 1988: Duval Co., FL (Am. Birds 42:1281); 1989a: Calhoun Col, FL (Am. Birds 43:494); 1989b: Cameron, LA (Am. Birds 43:494); 1989c: Charleston Co., SC (Post, pers. comm., 1990); 1989d: Beaufort Co., NC (this report).

Acknowledgments: I thank David Tyndall for the use of his camera in documenting this species.

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Destruction of a Pine Warbler Brood by an Adult Cowbird

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Many accounts of the Brown-headed Cowbird (*Molothrus ater*) mention its habit of often removing eggs from the nest of its host (Hann, 1941; Friedmann, 1963). It is also well known that nestling cowbirds often oust their nestmates, although this behavior is generally thought to be unintentional (Bent, 1958). Few instances of adult cowbirds ejecting or otherwise injuring the hatched young of their hosts have been reported. Tate (1967) observed a female cowbird carrying away and dropping one of three nestling Black-throated Green Warblers (*Dendroica virens*) from a nest which also contained a nestling cowbird. Bonwell (1895) reported a female cowbird feeding a young cowbird in a nest of a Rose-breasted Grosbeak (*Pheucticus ludovicianus*) and pecking the young grosbeaks on the head if they begged for food. We here report an adult cowbird's deliberate ejection of a warbler brood from a nest that apparently contained no cowbird nestling.

On 29 April 1990, at 1104 h, while walking through Bean Patch Savannah in the Green Swamp Ecological Preserve (N. C. Nature Conservancy property off NC 211, ca. 9.7 km NNW Supply, Brunswick County, North Carolina), we noticed a small object fall to the ground beneath a large longleaf pine (*Pinus palustris*). Upon investigation we saw that the object was a nestling bird. Approximately 9-12 m up in the tree was a small nest, and at the nest was an adult female cowbird, holding in her bill another nestling, which she pulled from the nest and dropped to the ground. Subsequently a third nestling was dropped, and a fourth, and apparently final nestling was pulled from the nest and deposited on the limb beside the nest. The cowbird then immediately flew from the nest and out of sight at 1106 h, the entire procedure having taken approximately 2 min. The nestling on the limb floundered there for approximately 1 min., clutching the limb with one foot before dropping to the ground. All four young were alive, though apparently injured. One was nearly dead and bleeding on its head and wing from lacerations presumably inflicted by the cowbird's bill. A search of the ground failed to reveal more than four nestlings. Believing them to be Pine Warblers (*Dendroica pinus*), but not certain at that point, we collected the young birds and waited a short distance away for the parents to return. When, after several minutes, no other birds had come near the nest, we left the site. The young warblers, later deposited in the research collection of the N. C. State Museum of Natural Sciences, were estimated to be about 7 days old (J. A. Gerwin, pers. comm.).

We returned to the nest site approximately 15 min. later to discover an adult Pine Warbler, with food in its bill, flying from branch to branch in the tree in obvious confusion. In the few minutes that we watched, the bird spent most of its time on the limb containing the nest. It then began to investigate other branches in the nest tree and immediately adjacent trees, returning often to the branch containing the nest. Its behavior suggested that no young remained in the nest, and although the nest was far too high for us to see into, we could neither hear any sound of remaining young begging for food nor see any evidence of nestlings through binoculars. We observed only the single parent bird of undetermined sex.

The cowbird's removal of the week-old warbler brood did not appear to be related to gaining an advantage for an existing egg or nestling of her own. She did not lay an egg while we were present and would not have been expected to lay one in a nest with such an advanced brood. It is possible that the unseen parent Pine Warbler could have been some distance away, tending a young cowbird already fledged from the nest, though in the rather open pine savannah we saw no sign of any such activity.

Considering what is currently known about nest selection and egg-laying by the Brown-headed Cowbird (Thompson and Gottfried, 1981), it appears that ejection of the Pine Warbler nestlings could have benefited the cowbird only by causing the parent birds to renest. After observing nest construction and the onset of egg-laying, the female cowbird would have been able to parasitize the replacement nest at a time likely to result in the successful hatching and rearing of a young cowbird by the host species. Though not, to the best of our knowledge, documented in the voluminous literature on cowbirds, removal of nestlings resulting in renesting by preferred host species may be a fairly common practice. If so, cowbirds may represent a far greater mortality factor in the lives of their most frequent victims than is generally recognized. The above incident, however, seems more unusual considering the fact that Pine Warblers are not generally considered to be among the most preferred hosts of the cowbird (Friedmann, 1963). At the least, the nestling mortality reported above justifies a re-examination of Friedmann and Kiff's (1985) generalization, made in reference to the success rate in a study of open nests of altricial birds, that "all nests lost because of parasitism involve loss of cowbird eggs, as well as those of the host."

Acknowledgements: We wish to thank Eloise F. Potter for reviewing this note and offering valuable suggestions.

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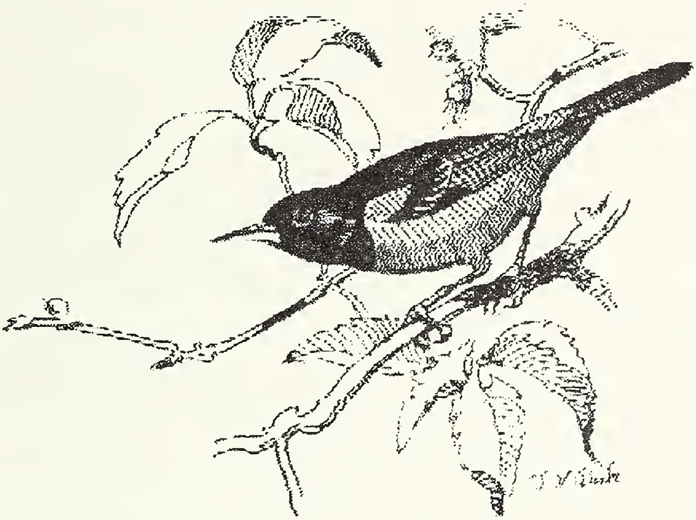

CBC Rare Bird Alert
(704) 332-BIRD

BRIEFS FOR THE FILES

HARRY E. LeGRAND JR.

(All dates 1989; sightings of waterbirds associated with Hurricane Hugo are included in a separate paper starting on page 73.)

COMMON LOON: Two were noted by David Wright from 28 July to late November at Cowan's Ford Dam at Lake Norman, N.C.

RED-NECKED GREBE: On 4 November, individuals were seen at both Bodie Island (Ricky Davis) and Pamlico Point (Philip Crutchfield, Morris Whitfield) in North Carolina. Another bird in that state was seen on 24 November near the Cedar Island ferry terminal (Paul Saraceni).

EARED GREBE: Eric Dean again noted the species at the Goldsboro, N.C., water treatment plant ponds. He considers that four different birds were present from 21 September into December; as many as three were present at one time in late October and early November. Another was seen at the large pond at Cape Hatteras point, N.C., from 27 October to 5 November (Derb Carter, Ricky Davis, Marcia Lyons). Perry Nugent submitted a photo to the department editor of one he observed at a golf course pond at Mount Pleasant, S.C., on 28 October.

CORY'S SHEARWATER: A very good tally of 952 was made on a pelagic trip off Oregon Inlet, N.C., on 26 August by Harry LeGrand and others.

LEACH'S STORM-PETREL: The only pelagic report for the fall was one noted by Paul DuMont and party off Oregon Inlet on 2 September.

BAND-RUMPED STORM-PETREL: Two were observed, one being photographed by Ned Brinkley, off Oregon Inlet on 18 August (Simon Thompson, Harry LeGrand, Ricky Davis, et al.).

NORTHERN GANNET: Rather early for the season was a sub-adult found weakened on the beach at Fort Macon SP, N.C., on 23 September by John Fussell.

AMERICAN WHITE PELICAN: A large number for North Carolina was a group of eight that spent the period from 4 November into early December at Pea Island (many observers); nine were counted there in late November by Herb Hendrickson. One was at Hatteras Inlet, N.C., on 25 November (Jeff Pippen).

GREAT CORMORANT: Ricky Davis noted three flying south over the ocean at Bodie Island on 4 November. Also on that date, Philip Crutchfield and Morris Whitfield saw a subadult at the mouth of Oyster Creek and the Pamlico River, N.C.

DOUBLE-CRESTED CORMORANT: Counts of 100+ were each made near Greenville, N.C., on 8 October (Veronica Pantelidis) and at Goldsboro, N.C., throughout the fall (Eric Dean).

ANHINGA: A good total of 14 was noted by Kitty Kosh at Greenfield Lake at Wilmington, N.C., on 18 August. One was rare near Goldsboro, N.C., on 4 August (Wesley Cureton), and another was seen at a pond along I-20 in Kershaw County, S.C., near the Wateree River on 18 November (Robin Carter, Caroline Eastman).

AMERICAN BITTERN: Rare in the mountains was one seen on 5 October by Norma and Bill Siebenheller and on 10 October by an unnamed observer at Sherwood Forest in Transylvania County, N.C.

GREAT BLUE HERON (WHITE PHASE): Quite unusual for North Carolina was one that was carefully studied by Wayne Irvin and Jim Mulholland at Greenview Farm south of Raleigh, N.C., on 21 April.

SNOWY EGRET: Rare for Mecklenburg County, N.C., were two immatures seen in the northern part of the county from 29 August to 10 September (David Wright, Heathy Walker). A good inland count of four was made by Philip Crutchfield at Fayetteville, N.C., on 25 August.

REDDISH EGRET: One was seen at Fort Fisher, N.C., on 13 August (Eric Dean). Two birds, an adult and an immature, were there on 2 and 3 September (Derb Carter, Sam Cooper, Jeremy Nance). Two immatures were seen in the North Inlet area, S.C., on 16 September by Lex Glover and Chris Marsh.

CATTLE EGRET: Rather late were two at Aurora, N.C., on 9 November (Sam Cooper), whereas 31 was a good count on the late date of 26 November at Bettie in Carteret County, N.C. (John Fussell).

GREEN-BACKED HERON: Herb Hendrickson observed a late heron on 19 November near Greensboro, N.C.

BLACK-CROWNED NIGHT-HERON: The only inland report for the fall was an adult seen at Fayetteville on 2 September by Philip Crutchfield and Doris Chambers.

YELLOW-CROWNED NIGHT-HERON: An immature was notable at Winston-Salem, N.C., on 16 September (Ramona Snavely, et al.).

WHITE IBIS: Remarkably late inland was an immature seen on 21 November at Winston-Salem by Ramona Snavely and party. A flock of 60 to 70 was seen near Goldsboro in early August by Bill Massengill; Eric Dean counted 24 immatures at that site on 5 August.

GLOSSY IBIS: Always of interest inland, two were seen by Ricky Davis near Zebulon, N.C., on 8 September; and two others were noted at Goldsboro by Eric Dean on 24 September.

FULVOUS WHISTLING-DUCK: This southern species is usually a rare but regular late fall visitor to the Carolinas, but there was a notable influx into eastern North Carolina in 1989. Kelly Davis reported that John Farley and Robert Hester saw flocks of 50, six, and five at private impoundments near Lake Mattamuskeet on 25 November. Seven were seen on 4 November at the Goldsboro water treatment plant (Eric Dean, Gene Howe, Sue Greenberg, Robert Raffel); six were seen at Bodie Island on 18 November (Haven Wiley party); two were shot on 23 November at an impoundment near the Neuse River in Lenoir County (reported by Veronica Pantelidis); and two were seen at an impoundment near Otway in Carteret County on several dates in November (John Fussell, Bob Holmes).

TUNDRA SWAN: This species has increased dramatically in parts of South Carolina. Noteworthy counts for the fall season were 13 near Beaufort on 23 November (Frederick Pratt, Richard Rickard), 12 at Santee NWR on 25 November (Lex Glover, et al.), and 60 at Huntington Beach SP on 25 November (Robin Carter, Caroline Eastman).

MUTE SWAN: Of uncertain origin was one that arrived in the fall with other waterfowl at an impoundment near Otway, N.C.; it was observed on 27 November by John Fussell and Bob Holmes.

GREATER WHITE-FRONTED GOOSE: Two immatures were seen with five blue phase Snow Geese at the U.S. Vegetable Lab near Charleston, S.C., on 2 November by Perry Nugent.

SNOW GOOSE: One white phase adult was rare near Chapel Hill, N.C., where seen by Maurice Graves, Anson Cooke, and others on 21 October.

ROSS' GOOSE: An adult was present again at Pea Island in late fall, first noted on 11 November by Haven Wiley and seen on numerous other dates later in the month.

BRANT: Seldom reported from Pamlico County, N.C., a group of eight was noted on 6 and 7 November at Mouse Harbor, and 30 were there on 23 and 24 November (Mike Brannen Jr., Mike Brannen Sr., Morris Whitfield).

EURASIAN WIGEON: Individuals were seen at Pea Island from 7 October (Allen Bryan, Bob Lewis) to late November, with a peak count of four there on 4 November (Ricky Davis). Another wigeon was present along the causeway at Lake Mattamuskeet from mid- to late November, as reported by John Wright and Kelly Davis.

COMMON EIDER: Somewhat early was an immature male seen by Ricky Davis at Bodie Island, N.C., on 4 November.

HARLEQUIN DUCK: Last winter, two females spent the season under the Oregon Inlet, N.C., bridge. This fall, a female, perhaps one of the birds from last winter, was noted there on 27 November by David Disher and party.

BLACK SCOTER: A first record for Mecklenburg County, N.C., was a female seen at Lake Norman on 4 November by David Wright and Roy Beddard.

SURF SCOTER: Eric Dean observed a female at Goldsboro from 25 to 31 October.

WHITE-WINGED SCOTER: A fairly good count was 20 seen among 6000 Surf and Black scoters on 22 November in northeastern Pamlico County (Mike Brannen Jr., Mike Brannen Sr., Morris Whitfield).

COMMON GOLDENEYE: A good find was three goldeneyes at catfish ponds near Ayden, N.C., on 24 November (Russ Tyndall).

COMMON MERGANSER: A female noted by Ricky Davis at Jordan Lake, Chatham County, N.C., was very early on 21 October. Another female was rare on salt water at Oregon Inlet on 25 November (Davis, Harry LeGrand).

BLACK VULTURE: An excellent mountain count was 11 birds seen with 20 Turkey Vultures at Sparta, N.C., on 17 August by James Coman.

AMERICAN SWALLOW-TAILED KITE: One seen by Paula Wright east of Wilson, N.C., on 24 September might have been displaced northward by Hurricane Hugo. Simon Thompson saw an immature at Landrum, S.C., on 12 August and perhaps the same bird on 27 August at Columbus, N.C.

MISSISSIPPI KITE: Most unusual for the mountains was one seen over the French Broad River between Rosman and Brevard, N.C., on 26 September by Norma and Bill Siebenheller. Likely the same bird was reported the next day near Brevard by Betty McIlwain, who saw it "flycatching" at dusk. An adult was notable at Fort Fisher, N.C., on 7 October (Robin

Carter, Sam Cooper), as was another adult at Sesquicentennial SP, S.C., on 30 September (Carter, Caroline Eastman).

BROAD-WINGED HAWK: Peter Worthington observed 100 migrating past Caesars Head, S.C., in two hours on 23 September. However, an outstanding count was the 2335 tallied by Simon Thompson on 27 September at Landrum, S.C.

ROUGH-LEGGED HAWK: An immature of the dark phase was well described at Savannah NWR, S.C., on 21 November by Frederick Pratt and Richard Rickard.

GOLDEN EAGLE: Philip Crutchfield and party had the rare experience of watching an adult or subadult Golden Eagle chasing a Bald Eagle, noticeably smaller than the Golden, in northeastern Pamlico County on 21 October. An immature Golden was seen on 24 November and several later dates in early winter at Lake Mattamuskeet by Kelly Davis and others.

MERLIN: Inland reports were made near Raleigh on 24 April by Jim Mulholland, near Charlotte on 28 September by David Wright, at Jordan Lake on 21 October and near Zebulon on 31 October by Ricky Davis, and at Eutawville, S.C., on 14 November by Dennis Forsythe.

PEREGRINE FALCON: Formerly quite rare inland, the species has increased in numbers in the Carolinas, in part due to hacking projects in eastern North America. One to two birds were seen regularly most of the fall season in downtown Charlotte (fide David Wright). Others in inland North Carolina were birds at two sites near Goldsboro on 30 September and 10 October (Eric Dean), at Brevard on 6 October (Norma Siebenheller), at Chimney Rock from August to 13 October (Simon Thompson), at Raleigh on 15 October (Jim Mulholland), and at Greenville on 16 October (Russ Tyndall). Two were observed at Caesars Head SP, S.C., on 23 September by Peter Worthington, and one was noted on 19 September at Landrum, S.C., by Simon Thompson.

YELLOW RAIL: A most unusual, and very significant, record was of a Yellow Rail flushed from the side of a road by Ruth Young while she was jogging on 10 November. She saw the "white wing-patch on the secondaries" as the bird flushed from Brush Creek Road near Fairview, Buncombe County, N.C.

CLAPPER RAIL: Greg Deering found an injured bird in downtown Fayetteville on 22 September, an obvious "victim" of Hurricane Hugo, which passed through the Carolinas on that day.

PURPLE GALLINULE: An immature was seen by Sam Cooper at Sunset Beach, N.C., on 17 September.

SANDHILL CRANE: Simon Thompson reported that an unnamed observer provided a good description of five birds seen on 23 October at Columbus, N.C. Another flock of migrants was nine seen at the Savannah spoil area, S.C., on 22 November by Frederick Pratt and Richard Rickard.

BLACK-BELLIED PLOVER: The better inland counts were nine at Goldsboro on 11 November (Eric Dean) and four in a plowed field at Mayesville, S.C., on 3 November (Lex Glover, Evelyn Dabbs).

LESSER GOLDEN-PLOVER: Two were noted by Paul DuMont at Pea Island on 4 September. Single plovers were seen, all in North Carolina, at Cape Hatteras point on 8 September (Marcia Lyons, Joan Bartlett) and again on

13 October (Lyons), near Aurora on 14 September (Sam Cooper), at Cowan's Ford Refuge at Lake Norman on 19 September (David Wright), at Fort Macon SP on 22 September (John Fussell), at Bogue Inlet on 22 September (Fussell, John Wright), and at the University of North Carolina at Wilmington on 22 September (Cooper).

AMERICAN AVOCET: Always of note inland, one was found by Eric Dean at Goldsboro on 7 September, and as many as eight were seen near Aurora from mid-October to 16 November by Sam Cooper. Locally rare on the coast were one at Fort Fisher on 3 September (Cooper, Jeremy Nance) and four at Pritchard's Island in Beaufort County, S.C., on 1 September (Kevin Calhoon, Kim Gundler).

SOLITARY SANDPIPER: Rather late inland was one on 15 October near Rocky Mount, N.C., as seen by Ricky Davis.

SPOTTED SANDPIPER: Quite late was one seen at Pactolus, Pitt County, N.C., from 4 to 24 November by John Wright, Veronica Pantelidis, and others.

UPLAND SANDPIPER: A very good inland count for the fall migration was nine found by Eric Dean at Cherry Hospital near Goldsboro on 29 September, a surprisingly late date for such a number. The only other inland report for the fall was two present at the Greenville, N.C., airport for several days in early August (John Wright, Russ Tyndall).

LONG-BILLED CURLEW: There were four reports, each of single birds along the North Carolina coast, for the fall season: at Portsmouth Island on 10 August (John Wright), at Long Beach on 10 August (Bill Brokaw), at Fort Fisher on 7 October (Carolina Bird Club participants), and perhaps the last individual again at Zeke's Island on 23 October (John Fussell).

HUDSONIAN GODWIT: Very rare in South Carolina were 10 birds seen at the Savannah spoil area on 21 October by Steve Calver. He also saw two there on 24 September and three on 22 October. Notable records for North Carolina included surprisingly late individuals at North River just north of Beaufort on 12 November (John Fussell) and at Pea Island on 24 and 25 November (Peter Worthington, Ricky Davis, Harry LeGrand).

SANDERLING: High water levels at inland lakes during the summer and fall kept reports and numbers of this species and other shorebirds generally at a minimum in 1989. Two individuals each were reported at Winston-Salem on 10 September (Ramona Snavely, Barbara Page), Goldsboro on 19 September (Eric Dean), and northern Mecklenburg County on 20 September (Heathy Walker).

WESTERN SANDPIPER: Very late inland was one seen at Lake Julian in Buncombe County, N.C., on 19 November by Ruth and Jerry Young.

WHITE-RUMPED SANDPIPER: Rare inland in fall were two at Winston-Salem on 24 September (David Disher), one near Rocky Mount on 15 October (Ricky Davis), and two at Pactolus, N.C., on 22 October and one there on 28 October (John Wright, Veronica Pantelidis).

BAIRD'S SANDPIPER: Disappointingly, there were just two fall sightings -- one at Cape Hatteras point on 3 September by John Kelly, and two at South Pond at Pea Island on 4 September by Paul DuMont.

PECTORAL SANDPIPER: Sam Cooper had a good inland count of 210 near Aurora on 24 August.

CURLEW SANDPIPER: One seen at South Pond on Pea Island on 6 August (Merrill Lynch, Derb Carter) was presumably one of the handful of birds reported there in July.

STILT SANDPIPER: The only inland count of multiple birds was nine at Goldsboro on 26 September (Eric Dean). At Aurora, in the tidewater region, Sam Cooper had an outstanding peak count of 184 at impoundments on 14 September. Another Stilt Sandpiper was quite late on 26 November at a spoil pool at Beaufort, N.C. (John Fussell).

BUFF-BREASTED SANDPIPER: Two were noted by John Kelly at Cape Hatteras point on 3 September. The only other fall sightings, each of single birds in North Carolina, were at New Topsail Inlet on 5 September (John Fussell, Debbie Mignogno), at Goldsboro on 6 September (Eric Dean), near Charlotte on 9 September (David Wright), and at Pea Island on 17 September (Ricky Davis, et al.).

LONG-BILLED DOWITCHER: One was rare inland near Greenville, N.C., as noted by John Wright on 24 September. The first sighting of the fall at Aurora was on 18 August (Sam Cooper), and six were locally unusual at Brittlebank Park in Charleston on 30 August (Dennis Forsythe).

WILSON'S PHALAROPE: The peak count at Pea Island, where regular in fall, was 14 on 19 August (Harry LeGrand, et al.). Inland were two near Aurora on 14 September (Sam Cooper) and one to two at Goldsboro from 20 to 31 August (Eric Dean, Ricky Davis). In South Carolina, where a rare migrant, singles were seen along the coast near Georgetown (Perry Nugent) and at the Savannah spoil area (Steve Calver), each on 16 September.

RED-NECKED PHALAROPE: Always of interest inland, two were seen by Russ Tyndall at the water treatment plant at Goldsboro on 30 September. Others seen along the coast, all single birds, were at Pea Island on 17 September (Harry LeGrand, Ricky Davis, et al.), at Cape Hatteras point on 23 September (Jeremy Nance), at Ocracoke Island on 5 September (Jerry Via, et al.), and at the Savannah spoil area on 16 September (Steve Calver).

POMARINE JAEGER: The best pelagic counts were six each off Oregon Inlet on 18 August, as noted by Harry LeGrand and others, and on 2 September, as reported by Paul DuMont.

PARASITIC JAEGER: There were several pelagic reports off Oregon Inlet in the fall, with the best total being three on 2 September (Paul DuMont).

LONG-TAILED JAEGER: Always notable, though not unexpected offshore in fall, were a full-plumaged adult off Oregon Inlet on 27 August, as seen by Harry LeGrand and others, and an immature off that inlet on 2 September, as noted by Paul DuMont.

SOUTH POLAR SKUA: An excellent find was one seen by the Paul DuMont party off Oregon Inlet on 2 September.

COMMON BLACK-HEADED GULL: One was reported at Hatteras, N.C., by Chris Foster in late November.

ICELAND GULL: Rather early for this species was the sighting of an immature on the beach at Avon, N.C., on 15 November (Derb Carter).

LESSER BLACK-BACKED GULL: Quite early was one seen by Eric Dean, John Wright, and others at Cape Hatteras point on 17 September.

BLACK-LEGGED KITTIWAKE: The only fall report was an immature seen flying past Cape Hatteras point on 4 November (Ricky Davis).

SABINE'S GULL: Always noteworthy, a Sabine's was seen in flight over the surf at the Cape Hatteras lighthouse by Herb Hendrickson and Benton Basham on 9 September.

CASPIAN TERN: Sam Cooper had a notable inland total of 27 birds on 14 September near Aurora. Two were rare for the mountains at Lake Julian near Asheville, N.C., on 22 September (Ruth and Jerry Young).

SANDWICH (CAYENNE) TERN: One yellow-billed tern, apparently of this taxon, was seen by Bob Lewis and Allen Bryan at Cape Hatteras point on 7 October. [This is the third report of a "Cayenne" Tern, if indeed an all yellow-billed Sandwich Tern is this form, from North Carolina and perhaps the United States; all sightings have been at Cape Hatteras. -- HEL]

ROSEATE TERN: The individual reported in July at Cape Hatteras was seen on several dates in August, the last on 19 August by David Wright and Taylor Piephoff.

ARCTIC TERN: One was reported at Cape Hatteras point on 3 September by Paul DuMont. Onshore sightings of this species are very rare.

FORSTER'S TERN: Despite this species occurring in winter on some of the larger lakes in South Carolina, it is seldom reported in the colder months from such sites in North Carolina. Thus, notable was one at Jordan Lake on 15 November, as seen by Doug Shadwick.

LEAST TERN: A good inland sighting was one on 14 August, and two on the following day, at Lake Glenwood near Greenville, N.C. (Veronica Pantelidis).

SOOTY TERN: Surprising numbers were seen off Oregon Inlet this fall, where it is usually uncommon. Harry LeGrand and others saw 28 on 26 August, 21 on 27 August, and 39 on 16 September. Bridled Tern counts for these three dates were only three, three, and 25; a count of 34 on 18 August in these waters (LeGrand) was the best fall total.

BLACK-BILLED CUCKOO: The only sightings were of single birds at Fairview, Buncombe County, N.C., on 1 August (Ruth and Jerry Young); near Winston-Salem on 16 September (Ed Mulvey); at Table Rock SP, S.C., on 3 October (Simon Thompson); in northeastern Pamlico County, N.C., on 21 October (Philip Crutchfield, et al.); and at Santee NWR, S.C., on the extremely late date of 3 December (Harry Snavely, Zack Bynum).

SHORT-EARED OWL: Hartsell Cash saw one in the daytime near Hillsborough, N.C., on 7 November.

NORTHERN SAW-WHET OWL: The owl that wintered last year at Buxton, N.C., was seen again on 29 November in the same yard (Bonnie and Frank Terrerri).

COMMON NIGHTHAWK: One was observed at Greensboro, N.C., on the late date of 29 October by Don Allen.

SELASPHORUS HUMMINGBIRD: One hummingbird with a "green back, rufous sides of the breast, rufous tail with a black strip and white dots" was at Betty McIlwain's feeder in Brevard, N.C., from 8 October to at least 15 December. Another bird of this genus, an immature, was reported by Simon Thompson at Tryon, N.C., from 16 November to 1 December.

OLIVE-SIDED FLYCATCHER: Individuals were observed in North Carolina at Duck on 4 September (Paul DuMont) and near Raleigh on 13 October (Jim Mulholland).

YELLOW-BELLIED FLYCATCHER: Sightings were scarce this fall, with the following reports, all from North Carolina: at Duck on 4 September (Paul DuMont), near Fayetteville on 8 September (Philip Crutchfield), and on 17 September and 29 September in Mecklenburg County (David Wright).

ALDER FLYCATCHER: David Wright had a rare and late bird, giving its characteristic "pip" or "peep" call, in Mecklenburg County on 10 October.

WESTERN KINGBIRD: Single birds were seen at four coastal North Carolina sites in October, plus one was at Fort Fisher on 24 November (Doug Shadwick).

GRAY KINGBIRD: Always of interest was one seen on telephone wires at Fort Fisher on 22 September by Sam Cooper.

SCISSOR-TAILED FLYCATCHER: One was seen at Buxton, N.C., from 4 to 14 October by Marcia Lyons, Merrill Lynch, and other birders. One seen a few miles to the west near Frisco on 18 November (Charlie Alston) might have been the same bird as above.

PURPLE MARTIN: Seldom seen after mid-September, one was late on 7 October at Fort Fisher, as noted by Ricky Davis.

NORTHERN ROUGH-WINGED SWALLOW: John Wright observed 100+ on the late date on 24 September near Greenville, N.C. This large number was likely displaced by the passage of Hurricane Hugo two days earlier.

BANK SWALLOW: Although at times fairly common to common in early fall, a count of 1400+ on powerlines near Aurora on 17 August (Sam Cooper) was an exceptional number. About 200 were seen at Goldsboro on 10 August by Eric Dean.

RED-BREASTED NUTHATCH: Possibly on territory were several seen along the trail between Burrell's Ford and the Walhalla Fish Hatchery in Oconee County, S.C., on 20 August (Robin Carter, Caroline Eastman). These observers also saw several at the hatchery on 3 September.

BLUE-GRAY GNATCATCHER: Although not unusual inland in November, a count of seven on 25 November at New Bern, N.C. (Bob Holmes, John Fussell, Rich Boyd, Ken Wilkens) was quite a surprise.

SWAINSON'S THRUSH: Several weeks early was one seen by Paul Saraceni near Jordan Lake on 18 August.

LOGGERHEAD SHRIKE: One was rare, perhaps an early migrant, in the mountains near Piney Creek, Alleghany County, N.C., on 10 August (James Coman).

WARBLING VIREO: Seldom reported in fall migration was one observed well by Simon Thompson on 16 September at Columbus, N.C.

PHILADELPHIA VIREO: Fall reports were made in North Carolina at Fairview in Buncombe County on 22 September (Ruth and Jerry Young), at Buxton on 24 September (Jeremy Nance), in northern Mecklenburg County on 29 September (David Wright), and at Greenville on 8 October (John Wright). Simon Thompson saw another on 27 September at Landrum, S.C.

BREWSTER'S WARBLER: David Wright and Heathy Walker saw this hybrid in northern Mecklenburg County, N.C., on 14 September. Unlike the majority of Brewster's, this individual had no apparent yellow on the underparts.

NASHVILLE WARBLER: As usual, there were a handful of sightings this fall in North Carolina, including coastal reports. Quite late was an adult male seen by Bob Holmes at New Bern on 19 November; another at Fort Fisher on 4 November (Sam Cooper) was also later than usual.

BLACKPOLL WARBLER: Jeremy Nance and Greg Massey noted surprisingly large numbers in the Corolla and Duck areas of the North Carolina Outer Banks, reporting 200 on the weekend of 14 and 15 October.

CERULEAN WARBLER: Probably a local breeding bird, a male seen at Chimney Rock, N.C., on 26 August by Simon Thompson was the only fall report.

PROTHONOTARY WARBLER: Merrill Lynch and Randy Yelverton noted a late bird at Conoho Creek near Williamston, N.C., on 9 October.

CONNECTICUT WARBLER: This species is seldom found in the fall except on the Outer Banks, and this season's only report was from that region. Bob Lewis saw an immature female at Buxton on 8 October.

MOURNING WARBLER: This rare and elusive migrant was observed by Paul DuMont at Duck on 4 September and at Calvert in Transylvania County, N.C., on 26 September by Norma and Bill Siebenheller.

WILSON'S WARBLER: In addition to several reports during the usual migration period, one was very late on 22 November at the Savannah spoil area (Frederick Pratt, Richard Rickard).

YELLOW-BREASTED CHAT: Two birds, perhaps at a wintering site, were seen at a quarry near New Bern on 25 November by Bob Holmes and party.

SUMMER TANAGER: One was late at Johns Island, S.C., on 4 November, as reported by Pete Laurie.

DICKCISSEL: An excellent migration count was seven birds seen flying north at Pea Island on 22 October by Ricky Davis. Other Dickcissels were single birds seen on 15 October near Raleigh (Jim Mulholland), on 29 and 31 October in northern Mecklenburg County (David Wright, Heathy Walker), and on 4 November at Fort Fisher (Sam Cooper).

BACHMAN'S SPARROW: Rarely reported from Harnett County, N.C., one was noted singing on 13 August by Harry LeGrand near Spout Springs.

CLAY-COLORED SPARROW: Seldom reported in the mountains, an immature was seen on the surprising date on 12 December in Sherwood Forest in Transylvania County, N.C., by Bill and Norma Siebenheller. Along the coast, where rare but regular in fall, were two at Pea Island on 22 October (Ricky Davis), one at that site on 14 October (Merrill Lynch, et al.), and one at Mount Pleasant, S.C., on 28 October (Perry Nugent, Charlie Walters).

LARK SPARROW: All fall sightings came from the North Carolina coast, with the only report of multiple birds being three at Duck on 4 September (Paul DuMont).

SAVANNAH (IPSWICH) SPARROW: Rarely reported away from the immediate coast was one seen in typical dune habitat near the Cedar Island, N.C., ferry terminal on 24 November by Paul Saraceni.

GRASSHOPPER SPARROW: Records for the coastal plain of North Carolina, all suggestive of local breeding, were a few on territory all summer at the

New Hanover County airport, with two still singing on 5 August (Sam Cooper, David Wright); three to six near Grantham in Wayne County on 6 and 8 August (Wesley Cureton); and two males and a female or immature at a Fort Bragg landfill near Fayetteville on 26 August (Philip Crutchfield).

LE CONTE'S SPARROW: Excellent finds were individuals seen by Paul Hart on 24 October at the southern boundary of Raven Rock SP, N.C., and by David Wright in Mecklenburg County on 1 November.

LINCOLN'S SPARROW: Eloise Potter noted one singing, rare behavior for the species in migration, along Moccasin Creek at the Wake-Franklin County line, N.C., on 29 October and 5 November. Other fall sightings were at Fairview, N.C., on 15 October (Ruth and Jerry Young); at Mount Pleasant, S.C., on 4 November (Perry Nugent); and in Mecklenburg County on 6 November (Taylor Piephoff).

WHITE-CROWNED SPARROW: Rarely seen on mainland Dare County, N.C., was one at the bombing range in the southern part of the county on 15 October (Merrill Lynch, Vaughn Morrison).

LAPLAND LONGSPUR: Unusual in southern South Carolina was one seen and heard giving the rattle call at the Savannah spoil area on 18 November by Steve Calver and Pat Young. In North Carolina, three were seen at Cape Hatteras point on 19 October (John Fussell) and one was noted near Goldsboro on 23 November (Eric Dean).

SNOW BUNTING: The only reports for the fall were of single birds at Fort Macon SP on 27 October (Neill Lee) and at Cape Hatteras point on 4 November (Ricky Davis).

YELLOW-HEADED BLACKBIRD: An immature male was observed by Paul DuMont at Pea Island on 4 September.

BREWER'S BLACKBIRD: Perry Nugent provided a thorough description of a male and a female at his feeder at Charleston on 15 November. Also unusual were two males and a female at cattle feeding pens near Charlotte, as seen by David Wright on 17 November.

COMMON GRACKLE: Quite rare on the Outer Banks away from the Buxton area, a group of 200 was notable at Salvo on 26 November (Harry LeGrand, Ricky Davis).

RED CROSSBILL: Small groups were seen by Robin Carter and Caroline Eastman in the South Carolina mountains near Burrell's Ford on 20 August and at the Walhalla Fish Hatchery on 3 September.

AMERICAN GOLDFINCH: Lex Glover noted a pair at a feeder with a fledgling at Lugoff, S.C., on 5 September.

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